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BEIRUT ARAB UNIVERSITY

الأبحاث العلمية في جامعة بيروت العربية ٢٠١١ - ٢٠١٠

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الأبحاث العلمية
في جامعة بيروت العربية
٢٠١٠ - ٢٠١١



جامعة بيروت العربية
BEIRUT ARAB UNIVERSITY

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كلمة رئيس الجامعة

إن المتأمل في مسيرة الجامعة يدرك أنها أصبحت بوتقة تفاعل حضاري من خلال ما قدمته وتقدمه من تعليم متطور وخدمات متميزة للمجتمع سواء في الاختصاصات المختلفة بها أو من خلال مختبراتها ومكتباتها وأساتذتها وخريجها على امتداد بيئتها في لبنان والوطن العربي، وشاءت إرادة الله وعزم أبنائها أن تكون منارة علم تثري الحياة العلمية والفكرية والثقافية وتواكب كل جديد في عالم العلم والمعرفة.

ويأتي هذا الكتاب توثيقاً لقطاف عامنا الجامعي الحالي من فكر كوكبة من الأساتذة الباحثين في مختلف حقول المعرفة والتخصصات التي تحتضنها كليات الجامعة، آملاً تنامي هذا الحراك مع اضطراب حركة الدعم والتمويل سواء عبر الجامعة أو المؤسسات المانحة المحلية والدولية.

والله ولي التوفيق

رئيس الجامعة
أ. د. عمرو جلال العدوي

المقدمة

تعزيزاً للبحث العلمي وإيماناً بأهميته في تقدم مسيرة العلم والمعرفة، تفرد جامعة بيروت العربية مساحة خاصة له من أولوياتها، وذلك يتجلى فيما يلي:

- تطوير لوائح مرحلة الدراسات العليا لتتماشى مع معايير الأداء والجودة العالمية واستحداث برامج تواكب متطلبات العصر، مما أدى إلى زيادة ملحوظة في عدد المقيدين والباحثين في هذه المرحلة.
- تطوير المعامل والمختبرات المواكبة للعملية التعليمية والمساندة للأبحاث على اختلافها سواء في الحرم الرئيس في بيروت أو في مبنى المختبرات في حرم الدبية أو في المنشآت الحديثة ضمن حرم طرابلس الذي بدأ باستقبال طلابه مع بداية العام الجامعي ٢٠١٠-٢٠١١.
- تطوير المكتبات وإدارتها وبنى المعلوماتية فيها بما يتوافق مع الحداثة والعصر الرقمي وتلبية حاجة البحث العلمي وإتاحة حرية تدفق المعلومات وسرعة وصولها للطلاب والباحثين.
- توطيد العلاقات المحلية والخارجية مع المؤسسات والجهات العلمية الداعمة للبحث العلمي كالمجلس الوطني للبحوث العلمية وجامعة إميوني (EMUNI) على سبيل المثال.
- دعم الجهود البحثية لأعضاء هيئة التدريس ومضاعفة الإسهام في نفقات المشاركة في المؤتمرات من حيث الإقامة والسفر ورسوم الاشتراك أو من حيث مضاعفة الساعات البحثية وتأمين التجهيزات اللازمة لها.

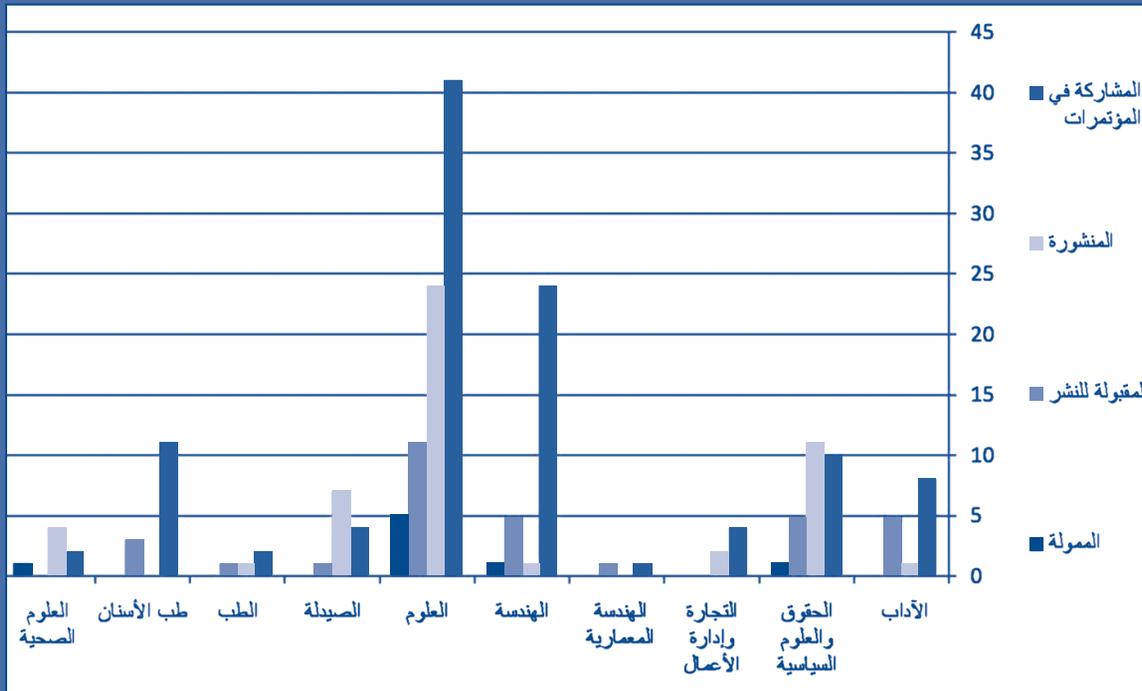
ومن تجليات اهتمام الجامعة بالبحث العلمي رعاية الأيام العلمية للكليات وإصدار كتاب أبحاث أعضاء هيئة التدريس مع نهاية كل عام جامعي، وقد تضمن كتاب العام الحالي اثنا عشر مدخلاً تمثل في كلمة رئيس الجامعة توطئة له وهذه المقدمة التي تلخص عدد الأبحاث العلمية كما ورد في الجدول رقم (١)، إضافة إلى عشرة مداخل لكليات الجامعة يتضمن الواحد منها ثلاثة أو أربعة أقسام بحسب طبيعة الأبحاث في كل كلية وذلك على النحو التالي:

- القسم الأول: مقدمة عن البحث العلمي وتطوير آلياته في كل كلية.
- القسم الثاني: أبحاث أعضاء هيئة التدريس المشاركة في المؤتمرات العلمية.
- القسم الثالث: حركة نشر الأبحاث العلمية بين منشورة ومقبولة للنشر.
- القسم الرابع: الأبحاث الممولة من جهات محلية وخارجية.

جدول رقم (١): عدد الأبحاث العلمية للكليات تبعاً لطبيعتها للعام الجامعي ٢٠١٠-٢٠١١

المجموع	الممولة	المقبولة للنشر	المنشورة	المشاركة في المؤتمرات	الأبحاث	الكلية
١٤	٠	٥	١	٨		الآداب
٢٥	١	٣	١١	١٠		الحقوق والعلوم السياسية
٦	٠	٠	٢	٤		التجارة وإدارة الأعمال
٢	٠	١	٠	١		الهندسة المعمارية
٣١	١	٥	١	٢٤		الهندسة
٨١	٥	١١	٢٤	٤١		العلوم
١٢	٠	١	٧	٤		الصيدلة
٤	٠	١	١	٢		الطب
١٤	٠	٣	٠	١١		طب الأسنان
٧	١	٠	٤	٢		العلوم الصحية
١٩٦	٨	٣٠	٥١	١٠٧		المجموع

رسم بياني مقارنة عدد الأبحاث العلمية وفقاً لكليات الجامعة



Faculty of Arts | كلية الآداب

شهد البحث العلمي تطوراً ملحوظاً في معظم أقسام كلية الآداب في العام الجامعي ٢٠١٠-٢٠١١. فتراوحت حركة البحث العلمي بأقسام الكلية بين ما نشر في مؤتمرات علمية عالمية ومنها ما تم نشره في دوريات علمية أو ما تم قبول نشره. ويمكن تفصيل ذلك على النحو التالي:

المشاركة بثمانية بحوث علمية بواقع (١) بحث واحد من قسم اللغة الانجليزية وآدابها، و(٢) بحثان من قسم اللغة الفرنسية وآدابها، و(٢) بحثان من قسم علم النفس، و(٣) بحوث من قسم المكتبات وعلوم المعلومات في مؤتمرات علمية محلية وعالمية عقدت في لبنان، دولة قطر، دولة الكويت، المملكة الأردنية، وسلطنة عمان، وهونج كونج، وتايوان.

كما تراوحت البحوث العلمية بين ما هو منشور (١) بحث واحد وما هو مقبول للنشر (٥) بحوث ويوضح جدول رقم ٢ حركة البحث العلمي بين المنشور والمقبول للنشر.

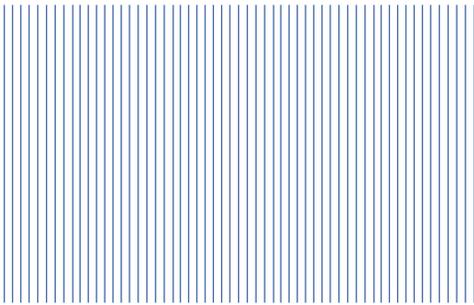
جدول رقم (٢): حركة البحوث العلمية بأقسام كلية الآداب للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	الدورية/ دار النشر	عدد البحوث	الدورية/ دار النشر	
١	النهضة العربية/لبنان	١	النهضة العربية/لبنان	اللغة العربية وآدابها
١	مجلة أعمال مؤتمر الأدب المقارن/ القاهرة	-	-	اللغة الانجليزية وآدابها
١	مجلة العلوم الاجتماعية/ الكويت	-	-	الإعلام
١	Personality & Individual Difference	-	-	علم النفس
١	Journal of Positive Psychology	-	-	

جدول رقم (٢): حركة البحوث العلمية بأقسام كلية الآداب للعام الجامعي ٢٠١٠-٢٠١١

اللغة العربية وآدابها	الأدب المقارن، أدب المرأة، أدب الطفل، الدراسات النحوية والصرفية للنصوص التراثية، دراسات المعنى والمتلازمات اللفظية، علم المعاجم، دراسات اللغة والثقافة، الدراسات اللغوية النصية وتحليل الخطاب، اللغويات السياسية، واللغويات الحاسوبية.
اللغة الانجليزية وآدابها	Discourse Analysis - Critical Discourse Analysis - Contrastive Linguistics - Text Analysis - Syntax and Morphology - Semantics - Sociolinguistics - Stylistics - Methodology of Teaching English - Theories of Translation - English Literature (*The English Novel*English Drama*English Poetry) - American Literature - Shakespearean Studies - Postcolonial Studies - Feminist Studies - Comparative Literature - Critical and Literary Theory - English Literature.
اللغة الفرنسية وآدابها	French Literature in the 20th Century - Contemporary French Literature - Comparative Literature - Francophone Literature. Literary Discourse Analysis - Para literary Discourse Analysis.
علم الإجتماع	التغير الاجتماعي، التنمية، البيئة والمجتمع، المشكلات الأسرية.

الإعلام	الإعلام والمجتمع، تقنية الاتصال، والرأي العام، والدعاية، والعلاقات العامة.
علم النفس	علم النفس الايجابي، وسيكولوجية المرأة، والاتجاهات الحديثة في مجال الشخصية، الطفولة والمراهقة، وعلم النفس الإكلينيكي.
التاريخ	التاريخ الإسلامي، والتاريخ الحديث، والتاريخ القديم.



ثانياً | المؤتمرات العلمية

١. الأبحاث المنفردة

القسم: اللغة الإنجليزية وآدابها	١ / ١ اسم عضو هيئة التدريس: د. ليلي كريستينا أحمد فؤاد حلمي
	المؤتمر الدولي السادس للغة والأدب والترجمة
	٢٠١١ / ٤ / ٢١-٢٠
	جامعة اربد الأهلية / اربد / الأردن
	اسم المؤتمر
	تاريخ المشاركة
	مكان المؤتمر
	عنوان البحث
	ملخص البحث
<p>Globalization/Englishization: Our Threatened Linguistic Diversity in a New Linguistic World Order</p> <p>Historically, the rise and fall of military, economic, cultural, or religious powers was accompanied by the rise and fall of their subsequent languages. There is no doubt that English has been rising with the rise of the British Empire and the American superpower. It is argued that English has become the most widely-spoken language in the world, with more native speakers and second-language learners than any other language. With the demise of the British Empire, its linguistic legacy evolved into what has come to be termed englishes. English has established itself as the language of science, the language of politics, the language of international communication, functioning as a lingua franca in many parts of the world and as one of the main five languages acknowledged by the Security Council, becoming a blatant epitome of linguistic imperialism.</p> <p>Though this may seem the torrential impact of globalization on the linguistic map of the world, giving rise to the alarm expressed by many eco-linguists who warn of the extinction of many languages, other linguists seem to be more optimistic. Their main argument is that with the spread of economic and cultural aspects of globalization, regionalization has also been encouraged.</p>	



It is argued that globalization has encouraged the spread of many regional tongues, such as Arabic or Chinese, with talk of the emergence of a possible New Linguistic Order.
This paper aims to give a reading of both parties to the debate, and give an evaluation of the so-called emerging New Linguistic Order vis-à-vis the threatened map of our linguistic diversity.

ملخص البحث

القسم: اللغة الفرنسية وآدابها

١/٢ إسم عضو هيئة التدريس: أ.د. نادية اسكندراني

D bat un Patrimoine, un H ritage: La Langue Fran aise en M diterran e

اسم المؤتمر

29 - 10 / 10 / 2010

تاريخ المشاركة

17Éme Salon du Livre Francophone / Biel / Beirut / Lebanon

مكان المؤتمر

Langue Fran aise et Symbiose de la Cr ativit dans les 2 Rives de la M diterran e

عنوان البحث

Les langues définissent les indentés personnelles mais s'inscrivent également dans un héritage commun. Elles forment des ponts vers d'autres personnes, d'autres pays, d'autres cultures en favorisant la compréhension mutuelle. La Langue française instaure le dialogue entre le Nord et le Sud de la M diterran e, comme h ritage commun.
Les écrivains francophones méditerranéens entretiennent des rapports avec le français, il en r sulte une symbiose cr ative entre les deux rives de la M diterran e.

ملخص البحث

١/٣

Parcours / changes et Recoupements Culturels / Colloque International

اسم المؤتمر

8 - 11 / 10 / 2010

تاريخ المشاركة

Universit du Caire en Collaboration avec les Univ. de Guelph et de Waterloo (Canada)

مكان المؤتمر

Vision de l'Autre et Qu te de Valeurs Trams Culturelles dans le Ventre de l'Atlantique de Fatou Diane

عنوان البحث

La problématique traitée est celle de l'immigration en France: Les stratégies identitaires et le choc des cultures. Dans quelle mesure l'échange interculturel peut-il favoriser le dialogue?

ملخص البحث

Il s'agit de l'analyse des stratégies mises en œuvre par la narratrice et les protagonistes confrontés à l'autre dans un espace étranger.

Le message de l'auteure est un appel à la conciliation et au multiculturalisme pour l'entente des peuples.

القسم: علم النفس

١/٤ إسم عضو هيئة التدريس: أ.د. مايسة النيال

Survey Research in the Gulf: Challenges & Policy Implications

اسم المؤتمر

27 - 1 / 3 / 2011

تاريخ المشاركة

University of Qatar / Doha / Qatar

مكان المؤتمر

Identity Crisis Through Adolescence: A Cross Sectional & Comparative Study Among Adolescents

عنوان البحث

Adolescence is one of the most dynamic periods of human development. Adolescence is characterized by dramatic physical, cognitive, social and emotional changes. These changes, along with adolescents' growing independence, search for identity, concern with appearance, need for peer acceptance, and active lifestyle, can significantly affect their physical activity behavior. The main objectives of this study area are:

ملخص البحث

a) To investigate the interaction between the factors of both gender and adolescence stages on the one hand, and identity crisis on the other.

b) To determine if there are differences between males and females in identity crisis.

c) To determine if there are differences between adolescence stages in identity crisis.

A sample of (662) male (n=300) and female (n=362) Kuwaiti volunteer undergraduates from different governmental schools and at Qatar University took part in the study. The sample presented two phases namely middle and late adolescence. Identity crisis was assessed by the Arabic version of The Extended Objective Measure of Identity (EOMI) developed by Grotevant and Adam (1984), revised by Benion & Adams (1986), and translated into Arabic by Alattia & El Nayal (2011). The (EOMI) is a 28 item Likert scale answered on a six point scale from "strongly agree" to "strongly disagree". Males had higher mean scores than females in the Ideological Identity which means that the ideological tendencies that Qatari males pass through have been exposed to a kind of disintegration and ambiguities, in particular in the fields of daily life, such as the religious, political, educational and professional identities. On the other hand, observing the differences between the Middle Adolescence and Late Adolescence stages, it is clear that the adolescents in the Middle Adolescence stage are more prone to ideological identity crises, while adolescents in the Late Adolescence stage are more prone to identity crises in interrelationships.

القسم: المكتبات وعلوم المعلومات	١/٥ إسم عضو هيئة التدريس: أ.د. حسانة محيي الدين
اسم المؤتمر	الدور المتغير لاختصاصيي المعلومات في اقتصاد المعرفة
تاريخ المشاركة	٢٠١١ / ٣ / ١٠-٨
مكان المؤتمر	مسقط / سلطنة عمان
عنوان البحث	دور المكتبات ومراكز المعلومات في تجسير الفجوة المعرفية في العصر الرقمي
ملخص البحث	<p>هناك عدد من المؤشرات التي تساهم في ردم الفجوة المعرفية (على سبيل المثال: مدى استخدام الإنترنت، البريد الإلكتروني، شبكة الاتصالات الخ... الفجوة المعرفية تتجلى بين دول الشمال ودول الجنوب، وبين دول في منطقة جغرافية واحدة (بين البلدان العربية نفسها)، وهناك فجوة معرفية داخل البلد الواحد، بين مناطق الريف والمدينة على سبيل المثال.</p> <p>إحدى أهم الوسائل الهامة في تجسير الفجوة المعرفية هي توفر المكتبات بكل أنواعها ومراكز المعلومات (كما هو وارد في بيان قمتي مجتمع المعلومات والمعرفة عامي ٢٠٠٣ و ٢٠٠٥ في جنيف وتونس)، ولا يقتصر الأمر على توفر المكتبات بل على ما تقدمه هذه المكتبات من خدمات متطورة مع ما يتناسب والمجتمع الرقمي (وبالتالي مدى الاستفادة المحققة لدى جمهورها. وعليه فإن الدراسة تناولت الدور الأساسي ومدى مساهمة المكتبات والمعلومات في ردم الهوية المعرفية عبر دراسة حالة هي: لبنان، أما عينة الدراسة، فكانت على الشكل التالي: (مكتبة جامعية: هي جامعة بيروت العربية/مكتبة عامة: هي مكتبة السبيل العامة/مكتبة مدرسية: هي مكتبة مدرسة عمر ابن الخطاب).</p> <p>تم استخدام المنهج الوصفي، أما أدوات البحث فكانت الاستبيان والمقابلة المؤشرات الخاصة بالمكتبات والتي تم الارتكاز عليها هي: الخدمات العصرية المتوفرة في هذه المكتبات، والإقبال والاستفادة من هذه الخدمات.</p> <p>تساؤلات الدراسة تمحورت حول: الهدف، التنظيم، المقتنيات، التجهيزات، الموارد البشرية، الخدمات، الجمهور المستهدف، مدى الاستفادة، الخ...</p> <p>النتائج، عبرت عن الواقع، أعطت الإمكانية في تحديد الثغرات والحاجات، وفي وضع خطة مستقبلية، عنوانها "التعليم المفتوح من خلال المكتبات الرقمية".</p>

Mid - Term IFLA Regional Standing Committee for Asia - Oceania

اسم المؤتمر

20 - 23 / 2 / 2011

تاريخ المشاركة

Hong Kong

مكان المؤتمر

Building a Strong Library Association: The Experience of the Lebanese Association

عنوان البحث

The LLA's greatest achievement was the IFLA/BSLA workshop on building a strong library association project. In the August 2010 IFLA annual conference in Gothenburg, Sweden, the LLA were selected for this project. This program was initiated to provide library associations with the ability to establish, develop and sustain themselves.

ملخص البحث

The participation of the Lebanese Library Association (LLA) in the Building of the Strong Library Association (BSLA) program would allow the development of a vision on the manner and processes by which such a framework (physical and managerial components) could be developed to allow the Association to play a more effective and efficient role towards its members, nationally and on the international level.

By studying the current situation of the LLA in numerous aspects, several needs that fit the purpose of this program were identified:

- Restudy its existing bylaws and organizational structure to include divisions and professional entities that focus on the various aspects of librarianship;
- Draft a strategic plan that would allow it to map its way for the future;
- Address the matter of locating and funding a permanent location in order to have a locale that the members could call home, house its records and plan for more organized activities for career development;
- Be aware of various channels of funding, especially from the governmental and international bodies to allow for the sustainable development of the Association and its members;
- Have a voice to be heard and respected in order to be empowered before the official government bodies in issues related to the profession.

2011 Symposium on Regional Cooperation of Information Service Professionals

اسم المؤتمر

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تاريخ المشاركة

Taipei, Taiwan

مكان المؤتمر

Challenges & Collaboration of Library & Information Science (LIS) Education in the Arab Countries

عنوان البحث

The Arab World varies in population, territory size, natural resources and political educational systems. Yet all are deemed developing countries, and the basic technological and information requirements in most of them are significantly under-developed. Even in the most economically developed countries in the region, oil-rich Gulf countries for example, information services exist primarily for the elite. Also, their educational systems suffer from a lack of regular review and revision. The information infrastructure, the government policy, LIS education and both the under and post-graduate educational systems need to be reviewed and enhanced to meet the pre-requisites needed for them to join the contemporary information society.

ملخص البحث

In order to take a serious step towards the adoption criteria of evaluation, we have to determine a key in the direction of the issues that form the structure of educational institutions in the areas of LIS, as well as the foundation upon which the structure of standards and evaluation mechanisms rest. This structure is based on the following elements: Curricula, Faculty Development, Students, Facilities and Resources, and Accreditation and Associations.

القسم: علم النفس

٢/١ إسم عضو هيئة التدريس: أ.د. مايسة النيال
أسماء الباحثين المشاركين: أ.د. أحمد عبد الخالق

الصحة النفسية والاجتماعية للمجتمع

اسم المؤتمر

٢٠١١ / ٣ / ٣١-٢٩

تاريخ المشاركة

جامعة الكويت / دولة الكويت

مكان المؤتمر

Mental Health Among Kuwaiti & Lebanese University Students

عنوان البحث

The main objectives of this study are: To determine if there are differences between males and females in mental health and subjective wellbeing variables (happiness, life satisfaction, self-esteem, mental and physical health, and religiosity) among Kuwaiti and Lebanese university students; to investigate the relationship between mental health and self-ratings of happiness, physical health, mental health, religiosity and strength of belief; to determine the possibility of extracting two factors from the correlation matrix for both the Kuwaiti and Lebanese samples. A sample of (881) undergraduate students from Kuwait University (Kuwait) and Beirut Arab University (Lebanon) participated in the research. The first hypothesis of the present study investigates gender and cultural differences where results were as follows:

ملخص البحث

- 1) Kuwaiti male students had higher mean scores than Kuwaiti female students on the variables.
- 2) Lebanese female students had higher mean scores on mental health, happiness, life satisfaction and religiosity. Kuwaiti male students higher mean scores than Lebanese male students on the "t" test were significant in the following variables: happiness, physical and mental health. This could be due to the differences between the Kuwaiti and Lebanese communities on the socio-economic level. The eruption of the war in Lebanon was a turning point in the life of the Lebanese population, affecting all sectors in the country. Nonetheless, the end of the war presented not only another dramatic change, but also a serious challenge for the rehabilitation of the Lebanese sectors, especially the economic one. It is within this economic context, that the needs of the population grow, now facing an aging boom, and increased unnecessary demands induced by oversupply. Furthermore, the Lebanese population has now awakened to the fact that the country is overcoming an epidemiological transition which is putting the traditional health system under stress.

١. الأبحاث المنشورة

القسم: اللغة العربية وآدابها	١/١ إسم عضو هيئة التدريس: د. بشير فرج
اسم المجلة أو الدورية	دار النهضة العربية
تاريخ المشاركة	٢٠١١
عنوان البحث	المُعرب والمبني في مفهوم الشراح "ابن عقيل" نموذجاً
ملخص البحث	يتناول البحث إحدى مسائل النحو العربي وهي مسألة المعرب والمبني، فالمعلوم أن الكلام إما معرب وإما مبني. والإعراب هو الأثر الظاهر أو المقدر بجلبه العامل في آخر الاسم المتمكن والفعل المضارع. أما البناء فهو لزوم آخر الكلمة حالة واحدة لا تتغير مهما اختلفت العوامل الإعرابية المسلطة عليها والكلمة اسم أو فعل أو حرف. فأما الحروف فكلها مبنية لعدم حاجتها إلى البناء، إذا إنها لا تدل على معنى في نفسها بل تدل على معنى في غيرها بعد وضعها في جملة مفيدة. أما الأسماء فالأصل فيها الإعراب بيد أن ثمة أنواعاً منها جاءت مبنية كالضمير والاسم الموصول، واسم الإشارة، والأسماء المركبة تركيباً مزجياً، الخ... وأما الأفعال ففعل الأمر والفعل الماضي مبنيان دائماً، وأما المضارع فمعرب في معظم الأحوال. وستكون غاية هذا البحث تمييز مفهوم المعرب والمبني عند ابن عقيل وإبراز سماته العامة، بما يشكل إضاءة متواضعة لحيث مهم في بنيان النحو العربي.

٢. الأبحاث المقبولة للنشر

القسم: اللغة العربية وآدابها	٢/١ إسم عضو هيئة التدريس: د. بشير فرج
اسم المجلة أو الدورية	دار النهضة العربية
عنوان البحث	القيمة البلاغية للمحسنات البديعية المعنوية
ملخص البحث	المحسنات المعنوية سبيل من سبل المحسنات اللفظية لأن المعنى إذا عبّر عنه بلفظ حسن، استتبع ذلك زيادة في تحسين المعنى. والمعاني هي الأصل بينما الألفاظ توابع لها قوالب، وهذا البحث يبين قيمة الموضوعات البديعية التي لها علاقة بالمعنى، كالتطابق الذي هو الجمع بين الضدين، أو بين الشيء وضده، كالليل والنهار، ويحيى ويميت، ولها وعليها. فمجال المطابقة تكمن في ترشحها بنوع من أنواع البديع يشاركها البهجة والرونق ففي قوله تعالى: تولج الليل في النهار وتولج النهار في الليل، وتخرج الحي من الميت، وتخرج الميت من الحي، وترزق من نساء بغير حساب " دلالة على أن من قدر على تلك الأفعال قدر على أن يرزق بغير حساب، هذا مثل على بلاغة المطابقة التي هي نوع من أنواع المحسنات البديعية المعنوية، وكذلك في باقي المحسنات كل واحد منها له قيمته الخاصة به، فهذا البحث يكشف عن سر هذا الجمال الكامن وراءها.

Proceedings of the Tenth International Symposium on Comparative Literature (December 2010)

اسم المجلة أو الدورية

Lost in English, Found in Translation

عنوان البحث

Through the act of translation, a new text comes into being, formulated as a new entity deriving its existence from the linguistic and cultural choices made by the translator. These choices are governed by the translator's ideologies, principles, background, gender and cultural identity. As such, though a translation may by many still be perceived as a representation of the original, it often, in fact, comes to function as a subversive force that reconstructs the original. These varied receptions of a translated text depend greatly upon the strategies adopted in the process of translation, as well as the position of the translated text vis-à-vis the receiving culture/language and the position of the target culture/language within a globalized world. There is no doubt that the hegemony of English as a world language has relegated the majority of the languages of the world to "minority" status.

ملخص البحث

This paper seeks to examine how the globalization of the linguistic/cultural scene has influenced the flow of translations, contributing to the establishment of English as the dominant lingua-franca. It also seeks to examine how innovative strategies in translation may contribute to the demarginalization of languages/cultures, through a textual resistance and/or subversion of a hegemonic English.

Personality & Individual Differences

اسم المجلة أو الدورية

Satisfaction of Life Among University Students: A comparative Study Among Four Arab Countries

عنوان البحث

The main objectives of this study were: a) To determine if there are differences between male and female students in satisfaction with life, and (b) to determine if there are differences in students' satisfaction with life according to country.

ملخص البحث

Journal of Positive Psychology

اسم المجلة أو الدورية

Self - Esteem Among College Students from Four Arab Countries

عنوان البحث

The two-fold objectives of this study were: a) To compare Egyptian, Kuwaiti, Lebanese, and Omani undergraduates in self-esteem, and (b) to explore the sex-related differences in self-esteem. Four samples of 2643 students were recruited. They responded to the Arabic version of the Rosenberg's (1989) Self-Esteem Scale. It was found that Kuwaiti and Omani men obtained a significantly higher mean scores on self-esteem than did their Egyptian and Lebanese counterparts. Among women, the main differences were relevant to the low mean score of Egyptian and the high mean score of Omani samples. However, there was no significant difference between Kuwaiti and Lebanese women. Regarding the sex-related differences in self-esteem, Kuwaiti men obtained a significantly higher mean score than did their female peers, but the effect size was small, whereas there was no significant sex differences in the other samples. These findings suggest that culture or sub-culture can affect the level of self-esteem. The sex-related difference in self-esteem is a controversial result. Its replicability on different countries is questionable.

ملخص البحث

اسم المجلة أو الدورية	مجلة العلوم الاجتماعية / جامعة الكويت
عنوان البحث	سلوك المخاطرة لدى المراسلين الصحفيين
ملخص البحث	تهدف الدراسة إلى فحص سلوك المخاطرة لدى المراسلين الصحفيين. تكونت عينة الدراسة من ٢٠ مراسلاً صحفياً. أجريت مقابلة مقننة مع كل فرد على حدة. كما طبق عليهم مقياس سلوك المخاطرة من إعداد ولسن وايزنك بعد ترجمته إلى العربية وتقنيته على عينات لبنانية ومصرية. وقد أسفرت الدراسة عن أن سلوك المخاطرة من سمات شخصية الصحفي الذي يعمل في المناطق التي تشهد صدمات وحروب.

Faculty of Law & | كلية الحق وق
Political Sciences | والعلوم السياسية

كرست كلية الحقوق والعلوم السياسية في الجامعة هذا العام حيزاً واسعاً من الاهتمام بتعزيز مسيرة البحث العلمي، كمنطلق أساس في نهضة العملية التعليمية. فقد أخذت الكلية على عاتقها إرساء مقاربات منهجية واضحة في تطوير العملية البحثية القانونية والحقوقية باعتبارها خياراً استراتيجياً يهدف إلى ربط مخرجات البحث العلمي بسوق العمل المحلي والعربي والدولي. وفي هذا الإطار قامت الكلية بدور ريادي تجلّى في خصوصية الموضوعات البحثية التي يقوم بها الباحثون المنتمون إلى هذه الكلية أساتذة وباحثي دراسات عليا وغيرهم من الباحثين اللبنانيين والعرب. ولقد حاولت الكلية ضمن خطتها لهذا العام الجامعي ٢٠١٠/٢٠١١ في مجال البحث العملي أن توائم بين حداثة الموضوعات البحثية المقترحة من جهة، وحاجات العمل وتخصصاته من جهة أخرى، كي تلائم متطلبات العصر الذي نعيش، عل أمل أن تكون حركة البحث العلمي مفتاح نجاح علمي ومهني للباحثين، ضمن إطار إدماج مخرجات البحث والتعليم في خدمة الأهداف المجتمعية.

وارتكز النشاط البحثي للكلية على عدة محاور:

المحور الأول: المساهمات البحثية لأعضاء هيئة التدريس في المجالات العلمية القانونية المحلية والدولية، علاوة على المؤتمرات القانونية محلياً وإقليمياً ودولياً.

المحور الثاني: التحضير لإصدار عدد جديد من مجلة الدراسات القانونية التي تصدر عن الكلية، والذي يتضمن في ثناياه العديد من الأبحاث والدراسات المحكمة التي أعدها أعضاء هيئة التدريس إضافة إلى نخبة من الخبراء القانونيين اللبنانيين والعرب.

المحور الثالث: التحضير لنشر أعمال المؤتمرات العلمية التي نظمتها الكلية مؤخراً ضمن منشورات قانونية، لنشر الفائدة وتعميمها.

المحور الرابع: التحضير للمساهمة في المشاريع البحثية التي يعدها المجلس الوطني للبحوث العلمية في لبنان - برنامج دعم البحوث العلمية في لبنان، وتحديداً في المحور المخصص لبحوث علوم الإنسان والمجتمع بما يتضمنه من جزء مخصص للعلوم الإنسانية وتحديداً لموضوع تطوير القوانين.

المحور الخامس: موضوعات البحث العلمي القانوني في الدراسات العليا، والتي روعي فيها التخصص والمهنية واهتمامات القطاع العام والخاص والمجتمع المدني والمنظمات الإقليمية والدولية، في ظل تنوع مشارب الباحثين واختلاف تخصصاتهم، وتطلعاتهم، والمشاكل البحثية التي يرغبون في محاكاة حلول عملية لها، بما يربط الواقع البحثي بسوق العمل المحلي في دولهم.

تطور البحث العلمي في الكلية

١. عدد الأبحاث المشاركة في المؤتمرات العلمية ١٠ أبحاث.
٢. أما الأبحاث المنشورة في مجلات أو دوريات ١١ بحثاً والمقبولة للنشر ٣ أبحاث، كما يشار إليه في جدول رقم ٣.
٣. الأبحاث الممولة من جهات محلية وخارجية وعددها ١.

جدول رقم (٣): حركة البحوث العلمية بأقسام كلية الحقوق والعلوم السياسية للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
١	مجلة التحكيم	١	مجلة التحكيم	القانون الدولي الخاص
		١	مجلة الحقوق للبحوث القانونية والاقتصادية	القانون المدني
-	-	١	المجلة العربية للفقه والقضاء	القانون التجاري
-	-	١	مجلة الزميل	القانون التجاري
-	-	١	موسوعة التشريعات العربية في الملكية الفكرية	القانون التجاري
١	مجلة كلية الحقوق-جامعة أسيوط	-	-	القانون المدني
١	مجلة الدراسات القانونية	١	مجلة الحقوق للبحوث القانونية والاقتصادية	أصول المحاكمات المدنية
-	-	١	صوت الجامعة	القانون الدولي العام
-	-	١	الحياة النيابية	
-	-	٢	الغدير	
-	-	١	القانون الدولي وإسرائيل-مركز الزيتونة	

٤. أما المجالات البحثية فقد توزعت بحسب الأقسام على ما يلي:

- القانون الدولي الخاص
- . تنفيذ الأحكام الأجنبية في لبنان
- . موقف القضاء اللبناني من الدفع بالإحالة لسبق الادعاء أمام قضاء أجنبي
- . القانون الواجب التطبيق على المسؤولية التقصيرية في ظل معاهدة روما ٢
- . حق المرأة اللبنانية في منح الجنسية لأبنائها المولودين من أب أجنبي
- . تنازع الاتفاقيات في إطار عقد النقل البحري
- . المركز القانوني للأجانب بشأن الملكية العقارية
- . تنازع القوانين في مجال الاستثمارات الأجنبية
- . القانون الواجب التطبيق على التعاقدات التي تتم عن بُعد
- . فض المنازعات عن بُعد
- . الحماية القانونية للشركات الأجنبية متعددة الجنسيات
- . العولمة وتأثيرها على فكرة الحصانة القضائية

- القانون المدني
- . ضوابط حق الاقتباس من المصنفات
- . الضوابط القانونية للتجارب الطبية
- . آليات التعويض عن الضرر الطبي
- . الاتجاهات الحديثة في مجال التزام الطبيب بإعلام المريض
- . حماية الملكية الفكرية للمشاركين في الأعمال الفنية
- . الحماية القانونية لحقوق البث الفضائي
- . حماية المستهلك في التعاقد المقترن بالدفع الإلكتروني

- التجارة الدولية
- . عقود التراخيص

. عقد الفرانشايز
. آثار تطبيق اتفاقيات منظمة التجارة العالمية على تطور حماية الملكية الفكرية في الدول العربية
. الشفافية في التعاقدات الدولية
. حوكمة القطاع الخاص
. ضمانات الاستثمار الأجنبي

– القانون التجاري

. حماية العلامات التجارية ودورها في حماية المستهلك
. النقل التجاري الدولي ودور منظمة التجارة العالمية
. العمليات المصرفية الإسلامية
. الملكية الفكرية والاستثمار

– التحكيم وأصول المحاكمات المدنية

. استنفاد ولاية القاضي
. الصلح القضائي
. حماية الغير في قانون المرافعات/أصول المحاكمات المدنية
. الحكم القضائي المنعوم
. مبدأ سلطة الإدارة في مجال التحكيم
. التحكيم والفساد
. فكرة العالمية في إطار التحكيم
. ازدواجية الرقابة على أحكام التحكيم
. احترام مبدأ الشفافية في التحكيم في عقود الدولة
. احترام مبدأ المواجهة في التحكيم
. مقارنة قانون التحكيم الفرنسي الجديد الصادر في يناير ٢٠١١ بالقانون اللبناني للتحكيم
. قواعد اليونسترال الجديدة بشأن التحكيم
. الجديد في التحكيم في العقود الإدارية في القانون الفرنسي

– القانون الجزائي

. الوساطة الجنائية وتسريع الإجراءات
. الاتجاهات الحديثة في مرحلة المحاكمة في الدعوى الجنائية
. فكرة "الشك" في القانون الجنائي
. المعاملة العقابية للنساء السجينات "دراسة مقارنة"
. الحماية الجنائية للمستهلك
. مشاركة المحكوم عليه في تنفيذ العقوبة
. الحماية الجنائية للملكية الفكرية
. المسؤولية الجزائية عن الأخطاء المهنية
. دور القضاء في تنفيذ التدابير الاحترازية
. الجرائم الاقتصادية "دراسة مقارنة"
. الحماية الجنائية للبيئة
. الحماية الجنائية لسوق الأوراق المالية
. مكافحة الاتجار بالبشر

– القانون الدستوري

. العلاقة بين السلطتين التشريعية والتنفيذية في النظم السياسية المختلفة
. التوازن بين السلطة والمسؤولية في النظم السياسية المختلفة
. طبيعة دور عضو البرلمان من الناحيتين القانونية والفعالية
. الرقابة على دستورية التشريعات من حيث أساسها وعلاقتها بالنظم الديمقراطية
. تحريك الدعوى الدستورية من حيث الجهة المختصة بنظرها وشروط قبولها وأسباب الطعن بعدم الدستورية، وتنفيذ الحكم الدستوري

. الوسائل المختلفة لتحريك الرقابة على الدستورية من منظور مقارن

– القانون العام / الحريات العامة

. التعريف بالحريات العامة بمفهومها التقليدي والحديث

. نسبة الحريات العامة

. اثر التطور التكنولوجي على ممارسة الحريات العامة

. الحريات العامة من حيث تقسيمها إلى مادية وفكرية

. الحريات العامة بين القانون الدستوري وفروع القانون الأخرى

– القانون الإداري

. تطور القانون الإداري من حيث تأثره بالتطور التكنولوجي

. فكرة المرفق العام في علاقتها بالنظم السياسية والاقتصادية

. الموظف العام في علاقته برؤسائه ومرؤوسيه

. التفرقة بين القرار والعقد باعتبارهما من الأعمال الإدارية

. معيار اختصاص القضاء الإداري

. شروط قبول دعوى الإلغاء (الإبطال) وأوجه الطعن بالإبطال وتنفيذ الحكم الصادر فيها

– الإدارة العامة

. مفهوم القرار الإداري بين القانون الإداري وعلم الإدارة العامة

. القيادة الإدارية من حيث أساليبها

. الوحدة الإدارية من حيث تعريفها وتقسيماتها المختلفة

. التفويض والإنابة والخلول في الوظيفة العامة

. مبدأ وحدة الرئيس الإداري الفرد في علاقته بعدم صلاحية اللجان لمباشرة العمل الإداري التنفيذي

. التخطيط في مجال الوظيفة الإدارية من حيث عناصره وأسباب نجاحه وإخفاقه

– القانون الدولي العام

. مبدأ السيادة في ظل العولمة

. دور الأمم المتحدة في حماية حقوق الإنسان

. التوارث الدولي في مجال المعاهدات

. مبدأ عدم التدخل في الشؤون الداخلية للدول واستثناءاته في القانون الدولي المعاصر

. الأسباب والآثار لقطع العلاقات الدبلوماسية

. غياب الحصانة في الجرائم الدولية

. تأثير الاتفاقيات الدولية الخاصة بحقوق الإنسان والتشريعات الوطنية

ثانياً | المؤتمرات العلمية

١. الأبحاث المنفردة

القسم: القانون الدولي العام	١/١ إسم عضو هيئة التدريس: أ.د. محمد المجذوب
اسم المؤتمر	قانون الانتخابات والدوائر الانتخابية
تاريخ المشاركة	٢٠١٠ / ٩ / ١٥
مكان المؤتمر	فندق الهوليداي إن / بيروت / - لبنان
عنوان البحث	لا تطوير إلا بتغيير الدوائر الانتخابية في قانون الانتخاب
١/٢	
اسم المؤتمر	أين وصلت الملاحظات القانونية في مجزرة صبرا وشاتيلا
تاريخ المشاركة	٢٠١٠ / ٩ / ١٦
مكان المؤتمر	فندق الكومودور / بيروت / لبنان
عنوان البحث	مجزرة صبرا وشاتيلا وبدء الولاية القضائية العالمية
القسم: القانون الدولي الخاص	١/٣ إسم عضو هيئة التدريس: أ.د. حفيظة السيد علي محمد الحداد
اسم المؤتمر	القاضي وظاهرة الحدود
تاريخ المشاركة	٢٠١٠ / ١٠ / ٢٢
مكان المؤتمر	بيروت معهد الدروس القضائية
عنوان البحث	أوامر الزجر في شأن التحكيم
ملخص البحث	تهدف أوامر الزجر في صورتها التقليدية إلى ضمان فعالية التحكيم، والتي جانب هذه الوظيفة فإن أوامر الزجر أصبحت تستخدم كوسيلة للنيل من فعالية التحكيم. ولقد عرض البحث لهاتين الوظيفتين من حيث التعريف بهما والانتقادات الموجهة إليهما وموقف محكمة العدل الأوروبية من أوامر الزجر التي تهدف إلى ضمان فعالية التحكيم في ظل الحكم الصادر في قضية West Tankers في ١٠ شباط ٢٠١٠ والذي قضي "بأنه يتعارض مع التشريع الأوروبي رقم ٤٤/٢٠٠١ الصادر في ٢٢ كانون أول ٢٠٠٠ والخاص بتحديد الاختصاص والاعتراف وتنفيذ الأحكام الصادرة في المسائل المدنية والتجارية" أن تقوم محكمة دولة طرف بإصدار أمر لمنع شخص من أن يشرع أو يستمر في الإجراءات المقامة أمام محاكم دولة أخرى طرف تأسيساً على أن هذه الإجراءات تتعارض مع اتفاق التحكيم.
١/٤	
اسم المؤتمر	مكافحة الاتجار بالبشر
تاريخ المشاركة	٢٠١١ / ١ / ٤ - ٣
مكان المؤتمر	جامعة بيروت العربية
عنوان البحث	إطالة عامة علي مكافحة الاتجار بالبشر
ملخص البحث	تعد ظاهرة الاتجار بالبشر ظاهرة متعددة الأوجه تستوجب مكافحة علي الصعيد الدولي والإقليمي والوطني باعتبارها عودة مقنعة لظاهرة العبودية التي استطاعت البشرية انقضى عليها في القرن الفائت.

اسم المؤتمر	دور القضاء في تفعيل التحكيم
تاريخ المشاركة	٢٠١١ / ١ / ١٤
مكان المؤتمر	بيروت معهد الدروس القضائية
عنوان البحث	القضاء والتحكيم
ملخص البحث	يلعب القضاء دورا هاما في التحكيم. ويمكن التفرقة بين دورين يقوم بهما القضاء في علاقته بالتحكيم: الدور الأول: ضمان فعالية التحكيم كقضاء وأجراء وحكم وهو ما يمكن أن نطلق عليه الدور الوظيفي للقضاء في علاقته بالتحكيم. الدور الآخر: يخص الدور المادي الذي لعبه القضاء في شأن التحكيم.

١/٦ إسم عضو هيئة التدريس: د. فاتن حسين حوى	القسم: قسيمي القانون التجاري والمدني
اسم المؤتمر	مؤتمر مكافحة الاتجار بالبشر في لبنان: الشراكة بين الدولة والمجتمع المدني
تاريخ المشاركة	٣ - ٤ / ١ / ٢٠١١
مكان المؤتمر	جامعة بيروت العربية / لبنان
عنوان البحث	مكافحة الاتجار بالأشخاص في لبنان: طرح المشكلة وافاق الحل.. مقارنة تطويرية
ملخص البحث	يتناول البحث موضوع مكافحة الاتجار بالأشخاص في لبنان انطلاقا من دراسة الاتجار بالأشخاص لجهة المفهوم القانوني دوليا، والعناصر المكونة لهذه الجريمة ومراحلها علاوة على مدى تجريم الشروع فيها والمشاركة، ومن ثم عرض الوضع القانوني لمكافحة الاتجار بالأطفال. كما يتناول البحث مقارنة وطنية للوضع القانوني للاتجار بالأشخاص في لبنان، لجهة رصد الاطار القانوني الحالي، وكذلك الجهود التطويرية التي يجري العمل عليها، واجراء نظرة رصدية وتقييمية لمشروع قانون مكافحة الاتجار بالأشخاص في لبنان والمقدم امام مجلس النواب اللبناني في اكتوبر ٢٠١٠. كما يتضمن البحث مقاربات تطويرية وتوصيات على المستوى الاستراتيجي والتشريعي والإجرائي والتعاون الدولي.

مشاركات في مؤتمرات أخرى	<ul style="list-style-type: none"> المشاركة كخبيرة استشارية دولية في عضوية اللجنة العلمية والتحضيرية لأعمال المؤتمر الدولي للتراخيص والذي عقد في البحرين، خلال شهر نوفمبر ٢٠١٠، البحرين. (اختيرت الدكتورة فاتن حوى كمحكم دولي للابحاث العلمية المقدمة للنشر في المؤتمر). المشاركة في اعمال الدورة التدريبية حول قانون حماية المستهلك اللبناني، التي عُقدت بتاريخ ٨-١٠ تشرين الثاني/نوفمبر ٢٠١٠، في الاسكوا - بيروت، بالتعاون بين وزارة الاقتصاد اللبنانية والجنة الاقتصادية والاجتماعية لدول غرب اسيا، بيروت. المشاركة في منتدى الحكومات العربية للملكية الفكرية وجرائم الانترنت، بتاريخ ٢٦-٢٧ نيسان/ابريل ٢٠١١ في فندق فينيسيا/بيروت، الذي انعقد برعاية وزير الاقتصاد اللبناني.
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١/٨ إسم عضو هيئة التدريس: د. حسين عثمان محمد عثمان	القسم: القانون العام
اسم المؤتمر	إدارة صحيحة، قرارات صحيحة
تاريخ المشاركة	١ / ٤ / ٢٠١١
مكان المؤتمر	بيت المحامي
عنوان البحث	دور الفقه الإداري المصري في مقاومة الفساد الإداري
ملخص البحث	إبراز إسهام القضاء الإداري في محاربة الانحرافات الإدارية.

القسم: القانون المدني	١/٩ إسم عضو هيئة التدريس: د. مصطفى أحمد أبو عمرو
اسم المؤتمر	إطالة على المستجدات في المسؤولية المهنية
تاريخ المشاركة	٢٠١٠ / ١٢ / ٨
مكان المؤتمر	جامعة بيروت العربية / لبنان
عنوان البحث	المسؤولية المدنية للمقاول والمهندس المعماري
ملخص البحث	عالج هذا البحث أهمية دور المهندس والمقاول المعماري في كافة مراحل عمليات البناء والهدم كما عرض لفكرة الضمان العشري للمقاول والمهندس والتزامهما بالتأمين الإجباري من المسؤولية الناشئة عن تهم أو عيوب البناء وقد انتهى البحث إلى ضعف الحماية التي يقرها قانون الموجبات والعقود اللبناني لرب العمل حيث خفض مدة الضمان إلى ٥ سنوات بينما هي ١٠ سنوات في كل التشريعات العربية فضلا عن القانون الفرنسي كما استلزم المشرع اللبناني رفع دعوى المسؤولية خلال ٣٠ يوما من تحقق سبب المسؤولية تتحدد هذه المهلة بسنة كاملة في التشريعات المناظرة.

القسم: أصول المحاكمات المدنية	١/١٠ إسم عضو هيئة التدريس: د. محمد سعيد عبد الرحمن
اسم المؤتمر	إطالة على المستجدات في المسؤولية المهنية
تاريخ المشاركة	٢٠١٠ / ١٢ / ٨
مكان المؤتمر	جامعة بيروت العربية / لبنان
عنوان البحث	مسؤولية الدولة عن الأخطاء المهنية للقضاة
ملخص البحث	عالج هذا البحث الحالات التي يجوز فيها مساءلة الدول اللبنانية بسبب الأخطاء المهنية الجسيمة للقضاة والنظام الإجرائي لدعوى المدعاة الناشئة عن هذه الأخطاء.

ثالثاً | حركة نشر الأبحاث العلمية

١. الأبحاث المنشورة

القسم: القانون الدولي الخاص	١/١ إسم عضو هيئة التدريس: أ. د. حفيظة السيد علي محمد الحداد
اسم المجلة أو الدورية	مجلة التحكيم
تاريخ النشر	العدد الثامن ١٠ / ٢٠١٠
عنوان البحث	أوامر الزجر في شأن التحكيم
ملخص البحث	تلعب أوامر الزجر دوراً هاماً في التحكيم إما على صعيد ضمان فعالية التحكيم وإما على صعيد المساس بالقوة الملزمة للتحكيم.

القسم: قسيمي القانون المدني والتجاري	١/٢ إسم عضو هيئة التدريس: د. فاتن حسين حوى
اسم المجلة أو الدورية	مجلة الحقوق للبحوث القانونية والاقتصادية / كلية الحقوق / جامعة الاسكندرية
تاريخ النشر	العدد الثاني ١٢ / ٢٠١٠
عنوان البحث	حماية حقوق المرأة بين الحماية التشريعية والقضائية ونظرة الشريعة الاسلامية
ملخص البحث	يتناول البحث الحماية التشريعية والقضائية لحقوق المرأة، ودراسة نظرة الشريعة الاسلامية لهذه الحقوق، فعلى مدى أعوام طوال والمرأة في العالم تسعى إلى مجتمع لا يميز ضدها بسبب كونها امرأة، وعمل الآلاف من الناشطين على امتداد العالم من أجل حقوق المرأة، ودفع الكثير من النساء حياتهن ثمناً للنضال من أجل حقوقهن، في الوقت الذي لم يتم تحقيق الحد الأدنى من الحماية لهذه الحقوق في العديد من دول العالم. فحقوق المرأة إحدى أركان حقوق الإنسان الأساسية، وإبرز الحقوق التي نصت عليها المعاهدات الدولية والإقليمية. ولعل صيانة هذه الحقوق ومنحها الحماية مرده ان نساء العالم مقارنة برجاله يواجهن مخاطر إضافية بسبب نوع الجنس والقضايا التي يتصدى لها.

١/٣	اسم المجلة أو الدورية
المجلة العربية للفقه والقضاء / مجلس وزراء العدل العرب / جامعة الدول العربية / الإدارة العامة للشؤون القانونية	اسم المجلة أو الدورية
العدد (٤١) ١٢ / ٢٠١٠	تاريخ النشر
المخدرات والانترنت: أداة للجريمة ووسيلة للمكافحة	عنوان البحث
يتناول البحث موضوع مكافحة المخدرات التي أصبحت تجارتها مرتبطة بشبكات منظمة دولية، لذا فإن مكافحة هذا النوع من الجرائم تعتبر مسألة إجماع دولي، خاصة في ظل تنامي ظاهرة الاتجار بالمخدرات والترويج لها كجريمة تمتد عصابات الاجرام المنظمة، كي تنفذ سمومها في كافة المجتمعات، وخاصة في ظل ارتباطها بشبكة غسل الاموال. من هنا فإن من الأهمية بمكان تسليط الضوء على جهود مكافحة الاتجار بالمخدرات، والاطار القانوني للمكافحة، في الاطار التقليدي، وكذلك مكافحة هذا النشاط الإجرامي الذي قد يستفيد من التطور التقني وأصبح يمارس على شبكة الانترنت.	ملخص البحث

اسم المجلة أو الدورية	مجلة "الزميل" الصادرة عن جامعة بيروت العربية
تاريخ النشر	العدد (٧٦) ١٢ / ٢٠١٠
عنوان البحث	حقوق المرأة بين ألم الواقع وأمل الحياة
ملخص البحث	يتناول البحث موضوع حقوق المرأة وحماية هذه الحقوق باعتبارها مطلباً إنسانياً، فقد شهدت السنوات الأخيرة تزايداً في الاهتمام بموضوع حماية حقوق المرأة مع تزايد الإدراك لعمق تأثير القوانين الحمائية في البناء التشريعي القائم في الدولة. وانطلاقاً من تطوّر المفاهيم القانونية الذي أفرزته التطورات الحديثة، فقد أدى ذلك إلى تزايد أهمية إيجاد معالجة جديّة وسريعة لواقع القوانين ذات الصلة بحقوق المرأة، في ظل تجاوزات وانتهاكات بحقها، منذ تكون قاصرة أو حتى بالغة سن الرشد، في ظل عدم وجود معرفة متوطدة ودقيقة لدى الكثير بماهية هذه الحماية وحدودها. نقول ذلك وعيننا دائماً على الرقم المذهل والمخيف في ان معا والذي اعلن في تقرير التنمية الانسانية ٢٠٠٩ الصادر في بيروت بتاريخ ٢١ تموز/ يوليو ٢٠٠٩ (اكثر من ٤٠ في المائة من النساء العربيات أميات!) ومفهوم الامية يتسع هنا ليشمل عدم المعرفة بالحقوق. من هنا تبرز أهمية البحث في هذا الموضوع الحقوقي، وابرار الجوانب القانونية فيه، ليس انتصاراً للمرأة فحسب بل للانسانية جمعاء.

اسم المجلة أو الدورية	موسوعة التشريعات العربية في الملكية الفكرية
تاريخ النشر	٢٠١١ / ١٢
عنوان البحث	موسوعة التشريعات العربية في الملكية الفكرية، "مع مدخل عام إلى حقوق الملكية الفكرية"، أربعة مجلدات، نتاج مشترك مع فريق خبراء إقليمي
ملخص البحث	تتناول هذه الموسوعة رسداً للأطر القانونية الوطنية والدولية المتعلقة بحماية الملكية الفكرية. حيث لم تعد حماية حقوق الملكية الفكرية مسألة محلية وحسب، بل أصبحت حماية عابرة للحدود تنعكس في آثارها على كافة المجتمعات والأنظمة الاقتصادية، ما يجعل منها أمراً بالغ الأهمية خصوصاً في ظل تعاظم القناعة بارتباط حقوق الملكية الفكرية بالتجارة الدولية والاستثمار من جهة وبالتنمية من جهة أخرى. وليست المنطقة العربية بعيدة عن هذا التوافق الدولي بل هي في صلبه إذ تحاول الدول العربية جاهدة أن تبذل كافة الجهود في سبيل حماية حقوق الملكية الفكرية، بيد أن جهودها تبقى دونها تحديات كثيرة منها ما يتعلق بجودة وتناسق النصوص القانونية ومنها ما يتعلق بالقدرات المؤسسية والكفاءات البشرية وغيرها. وفي ظل غياب أي مقارنة رصدية حديثة للأطر القانونية والمؤسسية لحماية حقوق الملكية الفكرية في الدول العربية، يبقى أمر رسم مقاربات وسياسات مقارنة لمواجهة هذه التحديات هدفاً صعب التحقيق ما ينعكس سلباً على قدرة الدول على تلبية حاجاتها الحقيقية في مجال وضع أطر حمائية للحقوق الفكرية. من هنا قام فريق عمل من الخبراء العرب من ثلاث دول عربية، بجهد عربي مشترك وشامل في مجال رصد كافة الأطر القانونية المتعلقة بحماية حقوق الملكية الفكرية في المنطقة العربية، في محاولة تعد الأولى من نوعها عربياً في هذا المجال، حيث ان النصوص العربية ذات الصلة لا تزال غير متوفرة الا بشكل منفرد على موقع الكتروني هنا او بين دفات موسوعات وطنية هناك. لذا فإن الهدف من هذه الموسوعة تقديم مدخل علمي قانوني للتعريف بحماية حقوق الملكية الفكرية، ووضع كافة التشريعات العربية وأهم المعاهدات ذات الصلة بين يدي الباحث القانوني العربي، بما يسهل من عملية المقارنة لموضوع كان ولا يزال احد أعمدة التجارة الدولية. ومن ضمن الأهداف المتوخاة في هذا الإطار، هو المساهمة في بناء المعرفة للقانونيين وأصحاب الفكر والخبرة وصانعي السياسات لتمكينهم من وضع وتنفيذ سياسات وقوانين فاعلة في مجال حماية حقوق الملكية الفكرية بصورة أكثر كفاءة وفعالية. وفي هذا السياق، يقدم فريق العمل العربي هذه الموسوعة الشاملة كنتيجة لعملية مستمرة من جمع المعلومات استمرت على مدى عامين، تم خلالها الرجوع للجريدة الرسمية في العديد من الدول العربية علاوة على المواقع الالكترونية الحكومية ومراجع ومصادر عديدة، كي تقدم للباحث المعلومة القانونية من مصادرها الرسمية. وفي عبارة موجزة، فإن فكرة الموسوعة جاءت خدمة للباحث القانوني في المنطقة العربية، تجمع له كافة النصوص في مكان واحد، علها تساعده في الانطلاق نحو مقاربات إصلاحية مقارنة لموضوع حماية حقوق الملكية الفكرية.

أسماء السادة الباحثين
المشاركين

الأستاذ الدكتور محمد حسن قاسم، أستاذ القانون المدني بكلية الحقوق / جامعة الإسكندرية،
رئيس قسم القانون المدني بكلية الحقوق / جامعة بيروت العربية (سابقاً).
الدكتور عبدالله عبدالكريم عبدالله، خبير دولي / مستشار اقليمي قانوني في الأمم المتحدة،
أستاذ جامعي، محاضر بكلية الحقوق والدراسات العليا / جامعة بيروت العربية، خبير دولي
في الملكية الفكرية / معتمد لدى مراكز التحكيم الدولية.

القسم: أصول المحاكمات المدنية

١/٦ إسم عضو هيئة التدريس: د. محمد سعيد عبد الرحمن

اسم المجلة أو الدورية	مجلة الحقوق التي تصدرها كلية الحقوق جامعة الإسكندرية
تاريخ النشر	العدد الأول ٢٠١١
عنوان البحث	النظام القانوني للفصل في المنازعات الناشئة عن تجارة القطن في الداخل
ملخص البحث	يعالج هذا البحث النظام القانوني الخاص بالفصل في منازعات تجارة القطن، وهو نظام يختلف تماما-طبقا للقانون ٢١٠ لسنة ١٩٩٤-عن الأنظمة الأخرى المقررة قانونا للفصل في المنازعات وذلك من حيث تكوين الهيئات المختصة وطبيعة قراراتها وطرق الطعن فيه.

القسم: القانون الدولي العام

١/٧ إسم عضو هيئة التدريس: أ.د. محمد المجذوب

اسم المجلة أو الدورية	صوت الجامعة / العدد الأول / الجامعة الإسلامية في لبنان
تاريخ النشر	صيف وخريف ٢٠١١
عنوان البحث	انتهاكات القانون الدولي الإنساني في الحروب

١/٨

اسم المجلة أو الدورية	الحياة النيابية
تاريخ النشر	صيف ٢٠١٠
عنوان البحث	اللامركزية الإدارية المطروحة في لبنان

١/٩

اسم المجلة أو الدورية	مجلة الغدير / العدد ٥٢
تاريخ النشر	خريف ٢٠١٠
عنوان البحث	العراق بين قانون الاحتلال والمقاومة الوطنية

١/١٠

اسم المجلة أو الدورية	القانون الدولي وإسرائيل / مركز الزيتونة
تاريخ النشر	خريف ٢٠١٠
عنوان البحث	مقاضاة لإسرائيل أمام المحاكم الدولية

١/١١

اسم المجلة أو الدورية	مجلة الغدير
تاريخ النشر	شتاء ٢٠١١
عنوان البحث	إستراتيجية أميركية لتسييس المحاكم الجنائية الدولية

القسم: القانون الدولي الخاص	٢/١ إسم عضو هيئة التدريس: أ.د. حفيفة السيد علي محمد الحداد
اسم المجلة أو الدورية	مجلة التحكيم، العدد ١١ / ٧ / ٢٠١١ تحت الطبع
عنوان البحث	التعليق على حكم التحكيم الصادر في قضية MALICORP LTD ضد مصرفي ٧ شباط / فبراير ٢٠١١: " مفهوم الاستثمار في ظل معاهدة ICSID بين الاتجاه الموضوعي والاتجاه الإرادي "
ملخص البحث	لم تعرف معاهدة واشنطن التي أنشئت المركز الدولي لفض المنازعات الناشئة عن الاستثمار في المادة ٢٥ مفهوم الاستثمار وهو الأمر الذي أدى الفقه المعني بهذه الاتفاقية وكذا أحكام التحكيم إلى تبني اتجاهات متباينة بشأن تحديد المقصود بالاستثمار.

القسم: أصول المحاكمات المدنية	٢/٢ إسم عضو هيئة التدريس: د. محمد سعيد عبد الرحمن
اسم المجلة أو الدورية	مجلة الدراسات القانونية التي تصدرها كلية الحقوق والعلوم السياسية بجامعة بيروت العربية
عنوان البحث	المصاريف والرسوم القضائية
ملخص البحث	يعالج هذا البحث موضوع المصاريف والرسوم القضائية من ناحية أساس الالتزام بها والطرف الذي يتحملها وحالات الإعفاء منها والنظام الإجرائي لتحصيلها والحالات التي يجوز فيها تقسيطها.

القسم: القانون المدني	٢/٣ إسم عضو هيئة التدريس: د. مصطفى أحمد أبو عمرو
اسم المجلة أو الدورية	مجلة كلية الحقوق / جامعة أسيوط
عنوان البحث	المسئولية المدنية للمقاول والمهندس في قانون البناء الموحد
ملخص البحث	يعالج هذا البحث مستجدات المسئولية المدنية للمقاول والمهندس المعماري وبصفة خاصة بطلان التصرفات التي ترد على الوحدات السكنية المخالفة لتراخيص البناء وعدم جواز شهر التصرفات الواردة عليها وكذلك بطلان التصرفات التي تؤدي لتغير غرض أماكن إيواء السيارات حيث تفاقمت هذه الظاهرة في الآونة الأخيرة في مصر. كما يعرض البحث لنطاق الضمان الإجباري والتضامن من حيث الأشخاص ومدى إمكانية إدراج المقاول من الباطن ضمن الملزمين بالتأمين الإجباري والضمان العشري ومبررات استبعاده من نطاق هذا الضمان.

رابعاً | المشروعات البحثية الممولة محلياً ودولياً

١. المشروعات البحثية على المستوى الدولي

القسم: قسَمي القانون المدني والتجاري

١/١ | اسم عضو هيئة التدريس: د. فاتن حسين حوى

عقد التراخيص التجاري في الدول العربية وتسوية منازعاته

عنوان المشروع البحثي

مشروع بحثي مشترك

ملخص عن المشروع البحثي

- الخبير الرئيسي للمشروع: الدكتور عبدالله عبدالكريم عبدالله، خبير دولي -مستشار اقليمي قانوني في الأمم المتحدة، استاذ جامعي، محاضر بكلية الحقوق والدراسات العليا-جامعة بيروت العربية، خبير دولي في الملكية الفكرية-معتمد لدى مراكز التحكيم الدولية.
- الباحث الرئيسي المساعد: الدكتورة فاتن حوى، كلية الحقوق بجامعة بيروت العربية، عضو منظمة خبراء التراخيص.

ملخص تنفيذي حول المشروع البحثي

تعتبر عقود التراخيص واحدة من أهم الأدوات القانونية والاقتصادية المستخدمة في تعزيز قطاع الأعمال والتجارة الدولية. وقد أصبحت هذه العقود ظاهرة عالمية بامتياز لما لها من آثار اقتصادية تنعكس على وضع التنمية خصوصاً في ظل نمو العولمة والتطور التكنولوجي المتسارع. فالتراخيص تؤثر في استثمار ثروات الدول، وتشجع أعمال الاستثمار، وتطور من نوعية الخدمات والسلع التي يتلقاها الأفراد في الدول. وقد شهدت السنوات الأخيرة نمو توافق دولي واسع حول ضرورة بذل أقصى الجهود، من أجل تعزيز التجارة الدولية، حيث دعمت معظم دول العالم، العمل الدؤوب من أجل الدفع قدماً بالاهتمام بعمليات التراخيص ونقل التكنولوجيا، وحماية الملكية الفكرية. فإذا كانت الشركات المصنعة ترغب في تحسين جودة منتجاتها أو تصنيع منتج جديد من خلال الانتفاع بحقوق يملكها الغير في شكل براءة أو نموذج منفعة أو مهارة عملية محمية بموجب الأسرار التجارية، فأفضل حل هو اكتساب تلك الحقوق بواسطة عقد ترخيص التكنولوجيا. وإذا كانت الشركة ترغب في دخول السوق أو توسيع مكانتها في السوق لمنتج تملك فيه حقوقاً بموجب براءة أو نموذج منفعة أو مهارة عملية محمية بموجب الأسرار التجارية، فأفضل حل هو التصريح لشخص آخر بالانتفاع بطريقة الصنع أو بالمنتج بواسطة عقد ترخيص التكنولوجيا. كذلك فإن الدول النامية تحتاج لأنواع كثيرة من التكنولوجيا التي لن تحصل عليها إلا بواسطة تراخيص تنقل عبرها هذه التكنولوجيا فيما يعرف بعقود نقل التكنولوجيا. والواقع من الأمر أن عملية تطوير أطر فعالة في هذا الإطار يتطلب رصدًا للواقع الحالي والقانوني وطنياً وإقليمياً ودولياً بغية رصد الثغرات في عمليات التراخيص وصولاً لمحاولة سدها عبر حزمة من الإجراءات، تمثل تطوراً من شأنه تسهيل التجارة الدولية ونقل التكنولوجيا. من هنا تكتسب هذا المشروع أهمية مضاعفة على الصعيد العربي، بوصفها محاولة لرصد وتحليل الإطار العام والقانوني للتراخيص وموضوعاتها مع استعراض الوضع القانوني لها في بعض الدول العربية، إضافة إلى الوضع الإقليمي والدولي في هذا الخصوص وتسوية المنازعات التي تنشأ عن عقود التراخيص.

جمعية خبراء التراخيص-الدول العربية / الأردن: أول جمعية عربية إقليمية متخصصة في مجال التراخيص ونقل التكنولوجيا. وهي جمعية غير ربحية تعنى بتنمية وتعليم مجتمع الأعمال على الأهمية الاقتصادية للتراخيص، وحماية حقوق الملكية الفكرية، ونقل التكنولوجيا وتشجيع الاستثمار في الأبحاث والتطوير. وهي الممثل الإقليمي في المنطقة العربية لمنظمة خبراء التراخيص الدولية بولاية فرجينيا (الولايات المتحدة الأمريكية). والتي تضم ٣٢ جمعية وطنية وإقليمية حول العالم. <http://www.lesarab.org/default.aspx?lang=en>

جهة تمويل المشروع

في حدود شهر تشرين الأول / أكتوبر ٢٠١١

الفترة الزمنية المحددة للإنتهاء من المشروع

Faculty of Commerce & | كلية التجارة
Business Administration | وإدارة الأعمال

احتل البحث العلمي موقعاً ممتازاً هذا العام في خارطة نشاطات كلية التجارة وإدارة الأعمال. فقد أخذ البحث العلمي حيزاً واسعاً من اهتمام أعضاء هيئة التدريس في الكلية. وفي هذا الإطار قام الباحثون في الكلية بأبحاث عديدة اتسمت بتنوعها من حيث المجالات وعمقها من حيث المضمون ومنهجية البحث العلمي. ولقد تميزت هذه الموضوعات بحداثتها ومقاربتها للواقع الميداني كما أن هذه الأبحاث قد تم قبولها للمشاركة في مؤتمرات مرموقة في عدة بلدان إقليمية ودولية تركزت في ثلاثة مجالات هي: التمويل والاستثمار - إدارة الأعمال - الاقتصاد. من هذا المنطلق خلصت تلك الأبحاث إلى عدد (٤) أبحاث مشاركة في مؤتمرات دولية، منها بحث منفرد وثلاثة أبحاث مشتركة، في مقابل (٢) بحثين منشورين في المجلات العلمية الوارد ذكرها في جدول رقم ٤.

جدول رقم (٤): حركة البحوث العلمية بأقسام كلية التجارة وإدارة الأعمال للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
-	-	١	International Journal of Knowledge Management	إدارة الأعمال
-	-	١	Journal of Informational & Knowledge Management	

١. الأبحاث المنفردة

١/١ | اسم عضو هيئة التدريس: أ. د. نهال فريد مصطفى

القسم: إدارة الأعمال

The International Journal of Arts & Sciences (IJAS) Conference for Academic Disciplines

From 29 / 5 / 2011 Till 2 / 6 / 2011

Harvard University, USA

The Reaction of Lebanese Banks Stock Prices to the 2008 Financial Crisis

By the end of 2008 the stock market collapsed after several months of tension and struggle. The financial crisis due to a downturn in housing prices, wrong uses of monetary and fiscal policies, and irresponsible behavior of private lenders and borrowers was one more episode in the financial turmoil that affected emerging market economies. The spreading crisis in emerging markets raised concerns about the financial stability of the banking system as a whole. Some analysts pointed out the risk of a contagion among international banks and, also, the systemic repercussions that the failure of large creditor banks might have on the domestic banking sector.

In this project, we try to detect contagion effects within the Lebanese banking sector by examining the impact of the financial crisis on Lebanese banks' stock prices.

This study will contribute to empirical evidence on bank contagion effects outside the United States, especially in emerging markets.

We proceed in two steps to measure the impact of the financial market collapse on Lebanese banks and to detect possible contagion effects. First, using event study methodology, we compute Lebanese banks' stock returns for a number of events related to the financial crisis. In a second step, we regress individual banks' stock returns on their international exposure to determine whether the financial crisis lead to a general loss of confidence in Lebanese banks (contagion hypothesis) or whether investors successfully discriminated between banks according to their exposure to the international market (individual exposure hypothesis).

The project will be organized as follows: Section (1) will be an introduction, in Section (2) we will present a historical view of the financial crisis, its major types, causes, theories. Section (3) will discuss the ultimate causes of the financial crisis and its impact on the world. Section (4) will be an overview of the banking system in general, and the effect of the financial crisis on this important sector as the banking sector is considered as one of the leading sectors in the Lebanese economy. Section (5) presents the competing hypotheses that may be put forth to explain the reaction of Lebanese banks' stocks prices, provides a detailed chronology of the financial crisis, and introduce the event analysis methodology and the cross section regression model used for testing the competing hypotheses. In section (5) we will present the results of the event study and of the regression analysis and we conclude.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

القسم: إدارة الأعمال

٢/١ إسم عضو هيئة التدريس: د. أحمد عبد السلام سليم
أسماء الباحثين المشاركين: أ. د. عمر خليل**The International Conference & Exhibition on Knowledge-Based Business, Industry & Education, KBIE / 2011**

اسم المؤتمر

8 - 10 / 1 / 2011

تاريخ المشاركة

University of Bahrain / Bahrain

مكان المؤتمر

Understanding the Relationship between Knowledge Management (KM) & Intellectual Capital (IC): A Two-Way Analysis

عنوان البحث

This research carried out a two-way analysis of the mutual KM-IC relationship using a data set from thirty-eight Egyptian software firms. Two sets of hypotheses were formulated and tested using PLS analysis. A number of significant positive influences between KM processes and IC dimensions have been detected. Knowledge transfer (KT) has emerged as the most influential KM process on the accumulation of human capital (HC), organizational capital (OC), and relational capital (RC). Similarly, OC appears to be the most influential IC dimension on the KM processes of knowledge acquisition (KA), knowledge creation (KC), and knowledge documentation (KD). The consequent model explains significant portions of the variances in the KM processes and the IC dimensions, and, therefore, exhibits a relatively strong explanatory power.

ملخص البحث

القسم: الاقتصاد

٢/٢ إسم عضو هيئة التدريس: د. ليلي عبود
أسماء الباحثين المشاركين: طارق عبد الرازق**Social Responsibility, Professional Ethics & Management**

اسم المؤتمر

24 - 27 / 11 / 2010

تاريخ المشاركة

Hacettepe University / Ankara / Turkey & EMUNI University

مكان المؤتمر

Social Responsibility & Labor Force

عنوان البحث

Normally, the labor force of a country (or other geographic entity) consists of everyone of working age, typically above a certain age (around 14 to 16) and below retirement (around 65) who are participating workers, that is people actively employed or seeking employment. In this paper, we will define social responsibility. We are also going to demonstrate the advantages and disadvantages of being socially responsible toward labor. Then, we will explain the characteristics of social responsibility and the government role in this issue. Moreover, we will talk about drivers that lead to the best practices of social responsibility toward labor. Furthermore, we will show the case in the Arab world in general and Lebanon in specific as a sample example of the situation in the developing world. Finally, we will conclude the situation and recommend certain points to be followed for future implementation of social responsibility in the developing world.

ملخص البحث

Academy of Management (AOM): West Meets East: Enlightening, Balancing, & Transcending

اسم المؤتمر

11 - 16 / 8 / 2011

تاريخ المشاركة

San Antonio Texas USA

مكان المؤتمر

The Transfer of Human Resource Practices from American & European Multinational Companies to their Lebanese Subsidiaries: Adaptation Versus Standardization

عنوان البحث

In the last decades, many publications have been devoted to understanding how human resource practices are transferred from the headquarters of multinational companies (MNCs) to their foreign subsidiaries, mostly in industrialized countries. There seems to be a gap in this research field about the subsidiaries in the Middle East, especially in Lebanon. This paper addresses therefore the issue of transferring human resource practices to Lebanese subsidiaries from parent companies within US and European MNCs. On the basis of ten case studies, the paper focuses on how and why human resource practices have been adapted to the Lebanese context. In-depth interviews were conducted with HR managers of local subsidiaries, as well as with HR managers from international headquarters. The study shows that human resource practices implemented in the Lebanese subsidiaries are often adapted and hybridized as a result of socio-cultural, economic and legal constraints. The practices observed lead us to define a "Lebanese host country effect". The study of "home country effects" also reveals differences between Western companies (American versus European) in the HR instruments, in the international HRM approach and in the transfer process.

ملخص البحث

١. الأبحاث المنشورة

القسم: إدارة الأعمال

١/١ إسم عضو هيئة التدريس: د. أحمد عبد السلام سليم
أسماء الباحثين المشاركين: أ. د. عمر خليل

International Journal of Knowledge Management

اسم المجلة أو الدورية

Vol. 6(4), PP: 127 / 144. Year 2010

تاريخ النشر

Culture & Knowledge Transfer Capacity: A Cross - National Study

عنوان البحث

There has been an increasing interest in understanding the factors that explain knowledge transfer capacity (KTC) at the societal level. This research test eighteen hypotheses relating national culture values and practices to societal KTC. KTC was found to correlate positively with gender egalitarianism values, uncertainty avoidance practices, and future orientation practices. KTC was also found to correlate negatively with uncertainty avoidance values, future orientation values, institutional collectivism values, in-group collectivism values, humane orientation practices, in-group collectivism values and practices, and power distance practices.

ملخص البحث

١/٢

Journal of Information & Knowledge Management

اسم المجلة أو الدورية

Vol. 9, PP: 127 / 144, year 2010

تاريخ النشر

National Culture Practices & Societal Information Dissemination Capacity

عنوان البحث

Societies exhibit varying capacities for information dissemination. This research explores the impact of national culture practices on information dissemination capacity (IDC) at the societal level. Nine hypotheses were formulated and tested. Countries with high information dissemination capacities were found to have a pattern of high uncertainty avoidance, high future orientation, high institutional collectivism, low in-group collectivism, and low gender egalitarianism practices. However, the comparison of the results of the culture values-based and culture practices-based regression models suggest that cultural values provide a better interpretation for the IDC variance than do cultural practices.

ملخص البحث

Faculty of Architectural
Engineering

كلية الهندسة
المعمارية

تستمر الكلية في إعطاء أهمية قصوى لتنمية تحفيز عملية البحث العلمي وذلك من خلال تفعيل شامل للمسارات، والتوجه نحو الموضوعات التخصصية ذات الأهمية وثيقة الصلة بالنظريات المعاصرة ومتطلبات البيئة المجتمعية. كما تركز الكلية على توسيع دائرة التواصل والتفاعل مع الجهات المعنية ودور النشر والمؤتمرات على الأصعدة المحلية والإقليمية والدولية. تواصل الكلية إعطاء الأولوية للدراسات المتخصصة والبحوث ضمن برنامج الدراسات العليا، خاصة الموضوعات التي تحوي دراسات عملية ومسوحات ميدانية. تشمل الجهات ذات التخصصات وثيقة الصلة بمجالات الدراسات العليا كالتنقابات، الهيئات والمؤسسات الأهلية، اتحادات المعماريين، المجالس والبلديات، شركات التنمية العقارية والاستثمار، الوزارات والإدارات الحكومية، والجمعيات المحلية.

وتساهم الكلية في مجال البحث العلمي على مستويين:

- إصدار مجلة علمية محكمة بصفة سنوية تحوي مجموعة من الأبحاث المقدمة من مساهمين على المستوى المحلي والإقليمي، يتم إعداد العدد الواحد والعشرون للعام ٢٠١٠ / ٢٠١١ ضم (١٥) بحثاً، وذلك تحت الرقم مسلسل الدولي ISSN ٢٠٧٩ - ٤٠٩.
- نشر مجموعة من الأبحاث العلمية التي يقوم بإعدادها أعضاء هيئة التدريس وإلقائها أو نشرها في مؤتمرات أو مطبوعات دولية.
- مشاركة أعضاء هيئة التدريس بصفة محكم (Reviewer) للأعمال المقدمة للنشر وعضو في هيئة التحرير (Editorial Board) في دوريات عالمية.

وبذلك نجد فيما يلي (١) بحثاً هاماً مشتركاً قدم في مؤتمر دولي عُقد إيطاليا بالإضافة إلى (١) بحث مقبول للنشر كما يظهر في جدول رقم ٥.

جدول رقم (٥): حركة البحوث العلمية في كلية الهندسة المعمارية للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
١	Journal of Architectural & Planning Research JAPR	-	-	الهندسة المعمارية

١. الأبحاث المشتركة

١ / ١ إسم الباحث الرئيسي: أ. د. حسن عبد السلام
أسماء الباحثين المشاركين: د. إبراهيم معروف

IX International Forum Le Vie dei Mercanti S.A.V.E. Heritage Safeguard of Architectural, Visual, Environmental Heritage

اسم المؤتمر

9 - 11 / 6 / 2011

تاريخ المشاركة

Aversa & Capri, Napoli / Italy

مكان المؤتمر

Local Identity & Cultural Appropriateness the Rebuilding of Central Beirut

عنوان البحث

Local identity is a complex issue consistently generating broad concerns among the groups involved in the management of built environments. It is extensively addressed through relevant literature and engenders a wide debate, especially when examining its relationships with Redevelopment and Cultural Contexts. This paper is an attempt to look at the cultural appropriateness of renewal projects which were carried out in post-conflict decades in Central Beirut, Lebanon. It presents a concise review built around a case-study model with three core parts. First, the Local Context is examined in order to explain the current revival scheme: What constitutes the Local Identity; Why is it critical to safeguard; Where is it mostly manifested; When and for how long has the process been operated; Who are involved; and How is it managed. The second part offers multiple views as to illustrate the reconstruction in Central Beirut and highlight its positive and negative aspects. In the third part, an approach for Assessing Cultural Appropriateness is proposed, based on a set of general aspects through which Heritage Management could be judged and Cultural Relevance assessed. Such evaluation of any intervention is needed to determine a cultural value and also to establish what lessons are to be drawn. A tentative list of parameters for evaluation is compiled to test whether expectations and aims are fulfilled. The research offers a brief discourse that could lead to further insight into enhancing the processes of revival of Built Heritage.

ملخص البحث

١. الأبحاث المقبولة للنشر

١ / ٨ اسم عضو هيئة التدريس: د. إبراهيم معروف
أسماء الباحثين المشاركين: أ. د. حسن عبد السلام

Journal of Architectural & Planning Research JAPR, & chapter of Routledge's Series in Planning (Eyes on the Street: How Jane Jacobs Changed the Way We View Urban Life)

اسم المؤتمر

Half a Century of Ongoing Ideology Reflections on Beirut Central District (BCD)

عنوان البحث

Is it true that the future of planning is more like the past? And if it is, how can the old lessons be deliberated, and in what dimensions? Tens of questions start to emerge during rereading Jane Jacobs's book *The Death and Life of Great American Cities*. Actually, this book exceeds American cities to be, internationally, the book of cities anywhere and everywhere. One of the recent reflections of its ideology is still alive in the middle-east through the development of Beirut Central District. It is a valid example that reflects the applicability of Jacobs' ideas in diverse contexts worldwide. Following widespread destruction and damage caused by civil and political conflicts, the centre is undergoing extensive renovation and rapid transformation. An important urban hub with rich architectural and urban qualities, it is subject to dramatic change, inevitably at once positive and negative.

ملخص البحث

At present, there is a real need to review the dynamics, processes, and pressures that are together operating to revive its built and social image, yet could simultaneously threaten its values and qualities. Evaluation of epistemology of this project leads to go back over Jacobs's book and the details of architectural and planning influences in economics, sociology, anthropology, and philosophy of city context. The problems of cities which had been discussed in Jacobs's book exist again and again, with some planning approaches for developments in various occasions. May be those problems are different in titles, but they are relatively equal in meanings and impacts to those which had been presented in Jacobs's writings. One of the reasons of this similarity is the analogy of lifecycles across many examples worldwide, and the validity of her observations in different contexts and societies, even though disperse in geographical location, demography, and cultural attributes.

This paper discusses how far the ideology of Jacobs's book is still ongoing despite of the long time elapsed, as 2010 marks the fiftieth anniversary of its publication, and the keynotes which were included, should be taken into consideration during the study of future development of liveable urban areas. This paper is an attempt to correlate those contextual aspects with the general issues/principles in Jacobs' writings, and thus highlight a broader relevance and applicability in diverse cultural contexts. It aims at presenting further insight into the validity of her ideology in Beirut's case and specific context, with a view to provide guidance and focused orientation for future decision-making and implementation of revival schemes in the city core.

Faculty of Engineering | كلية الهندسة

يشكل البحث العلمي في كلية الهندسة واجباً أساسياً لأعضاء هيئة التدريس بالكلية. قام أعضاء هيئة التدريس بالاقسام المختلفة بنشر عدد ٣٠ بحثاً موزعاً على التخصصات الآتية:

- الهندسة الكهربائية / شعبة القوى والتحكم
- الهندسة الكهربائية / شعبة الاتصالات والالكترونيات
- الهندسة المدنية والبيئية
- الهندسة الميكانيكية
- هندسة الحاسب الآلي
- الهندسة الصناعية والادارية

وقد تم الحصول على مشروع ممول من مجلس البحوث العلمية اللبنانية في قسم الهندسة المدنية والبيئية. كما قام بعض أعضاء هيئة التدريس وخاصة بقسم الهندسة الميكانيكية التقدم للمجلس لتمويل مشاريع جديدة مرتبطة بالصناعة وبالطاقة المتجددة حيث ان ذلك من اولويات المجلس البحثية وكذلك تم الاتصال ايضاً ببعض الجهات الممولة في هذا الصدد. ويقوم بعض اعضاء هيئة التدريس ايضاً باجراء بحوث ومشاريع مشتركة مع الجامعات المحلية والدولية. وقد تم الاتصال بالجهات الممولة لتمويل بعض المشاريع.

وتراوحت البحوث العلمية المشاركة في المؤتمرات بـ (٢٤) بحثاً، وبين ما هو منشور (١) بحث وما هو مقبول للنشر (٥) بحوث والممولة (١) بحث، ويوضح جدول رقم ٦ حركة البحث العلمي بين المنشور والمقبول للنشر.

جدول رقم (٦)، حركة البحوث العلمية بأقسام كلية الهندسة للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
١	Ain Shams Journal of Electrical Engineering	-	-	الكهرباء
١	ACI Material Journal	١	Journal of Construction & Building Materials, ELSEVIER	المدنية والبيئية
١	International Journal of Global Warming	-	-	الميكانيكية
١	WSEAS Transaction on Fluid Mechanics	-	-	
١	American Journal for Engineering & Applied Sciences	-	-	الحاسبات والمعلوماتية
-	-	-	-	الصناعية والادارية

Telemedicine & Bio-signal Analysis & Processing, Voice and Video over IP, Surround Sound System, Speech & Speaker Recognition, Embedded Systems, Neural Networks and Fuzzy Logic, Crypto-analysis, Biometrics, Digital Image watermarking, Microwave Instrumentation, Ultra Wide Band Antennas, Modern Wireless Communication Systems, High Voltage Engineering, Digital protection, Earthing issues and lightning protection, Applications of particles swarm optimization, Active power filters, Problems related to micro-generation of electrical power ,Applications of artificial intelligence techniques in power electronics, Applications of industrial automation, Applications of embedded controllers in electrical power engineering, Electrical drives, Automatic voltage regulators, Active and reactive power control.

الكهرباء

Flexural behavior of composite beam-column joints under cyclic loading, project management of roads and highways. Behavior of composite sections made of different composite materials in linear and nonlinear phase, mechanical strengthening system, effect on confinement pressure on load capacity of structural members, behavior of reinforced concrete joints subjected to gravitational and lateral loads, ductility of fiber reinforced concrete members, behavior of high strength concrete members (including flexural and shear strength, development length and bond, underwater concrete construction using anti-washout admixtures, research oriented towards enhancing behavior and response of structural reinforced concrete structures in tall and seismic resistant buildings, load transfer along friction piles in weak carbonate rocks, river engineering, pipe network, the use of new technologies (ITS) in traffic control systems, Integrating environment, energy, sustainability issues in transportation planning process, the role of mass transit and modern systems in transportation planning, the use of modern surveying in Civil Engineering, design of horizontal and vertical survey networks by GPS.

المدنية والبيئية

Identification of the optimal air-conditioning system that satisfies thermal human comfort and indoor air quality at minimum energy consumption, pollution control of marine oil spills in Lebanese waters, desalination studies, control of air pollution in Metropolitan Beirut due to automotive emissions.

الميكانيك

Robust computer networks, cryptography and data security, algorithm design, multiple-valued logic (theory and applications), computer organization and architectures, digital communication, neural networks, petri nets, computer networking, computer graphics, image processing, natural language processing, hardware simulation and Hardware Architecture Description Languages (HADL).

الحاسبات والمعلوماتية

Manufacturing process deals directly with materials forming, cutting, shaping, planning, etc... Manufacturing systems focus on the integration of manufacturing process, usually through computer control and communications.

الصناعية والإدارية

١. الأبحاث المنفردة

القسم: هندسة الحاسبات والمعلوماتية

١/١ | اسم عضو هيئة التدريس: أ. د. أحمد عبدالرافع بلال

7th International Conference on Computer Science & Information Systems

13 - 16 / 6 / 2011

Athens / Greece

Limiting the Number of Route Changes in Data Networks

Routing protocols are used to determine minimum cost paths between routers. Routers that use these routing protocols update their routing paths on a predefined time to find a new optimal route. In this paper the problem of limiting the number of route changes is investigated in a weighted network with a-priori known cost changes. In a given weighted network when the link costs are known over a specified period $[0, T]$ the optimal route between a pair of routers S, D will constantly change with time. We ask the question: If the number of route changes between S, D is limited to k changes only, when are those changes made and how are optimal routes computed? The paper shows that for $k=0$, the one optimal route to use over the whole period $[0, T]$ is the optimal route between S, D computed for the network with each link cost replaced by its average link cost over the period $[0, T]$. We then show how to solve the problem for small values of k . Large values can be solved using dynamic programming.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

١/٢

7th International Conference on Computer Science & Information Systems

13 - 16 / 6 / 2011

Athens / Greece

Bounds on the Average Code Length of a Huffman Code with Two & Three Different Code Word Lengths

Minimum Redundancy prefix codes have a wide range of applications in science and engineering. Given a set of weights (w_1, w_2, \dots, w_n) whose sum equals 1, we assign 'n' binary codes with lengths (L_1, L_2, \dots, L_n) such that the average code length $L(av) = w_1L_1 + w_2L_2 + \dots + w_nL_n$ is minimum. This code can be obtained in time $O(n \log n)$ for general weights and in $O(n)$ time if the weights are sorted. An interesting open problem is the following: Many different weight sets can produce minimum redundancy codes with exactly the same code word lengths, that is, many assignments for (w_1, w_2, \dots, w_n) will produce the same set of code lengths (L_1, L_2, \dots, L_n) and each will have a different average code length $L(av) = w_1L_1 + \dots + w_nL_n$. We ask the question, what will the minimum and the maximum values for $L(av)$ be? That is to say for all sets of weights that will produce a minimum redundancy code with code words (L_1, L_2, \dots, L_n) how should we choose these weights to make $L(av)$ a minimum and / or a maximum?

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

In this short paper we answer the question for the two special cases when the set of code word lengths L_1, L_2, \dots, L_n have only two and three distinct values. In other words we consider sets of weights that will produce Huffman trees with all leaves on either two levels or three levels.

ملخص البحث

القسم: الهندسة الميكانيكية

١/٣ إسم عضو هيئة التدريس: أ.د. علي حمود

Proceedings of ICFD 10: Tenth International Congress of Fluid Dynamics

اسم المؤتمر

16 - 19 / 12 / 2010

تاريخ المشاركة

Ain Soukhna / Red Sea / Egypt

مكان المؤتمر

Experimental Investigation for Centrifugal Slurry Pump Performance

عنوان البحث

The performance characteristics of a centrifugal pump (Pedrollo type) have been experimentally investigated using different sand concentrations ranging from 0 to 15 wt% of sand. The flow behavior of different sand/water mixtures has been inspected using a test rig with 50 mm diameter PVC pipes with various fittings and valves. Pressure taps were provided in the suction and delivery lines of the pump to measure the total head developed by the pump. For each experiment, the pump total manometric head, overall efficiency, and electrical power input as function of the volume flowrate were continuously measured.

ملخص البحث

It was observed that the head and the efficiency of a centrifugal pump with slurries are, in general, lower for traditional designs in comparison to water due to the presence of suspended solids. The head and efficiency of the pump decrease with increase in sand concentration (by weight). Power consumption on the other hand increases with increase in sand concentration at a rate that is higher than the rate of increase of the mixture specific gravity (S). The study has also shown that the head ratio, efficiency ratio, and power ratio do not vary significantly with flowrate and the variation is within $\pm 9\%$ at any sand concentration tested. Moreover, some correlations and formulas have been suggested to help predict the change in performance of pump with slurries at different sand concentrations flowrates using the manufacturer's.

١/٤

Proceedings of ICFD 10: Tenth International Congress of Fluid Dynamics

اسم المؤتمر

16 - 19 / 12 / 2010

تاريخ المشاركة

Stella Di Mare Sea Club Hotel / Ain Soukhna / Red Sea / Egypt

مكان المؤتمر

Experimental Study on Air - Lift Pump Handling Slurry Flow

عنوان البحث

Air-lift pumps are utilized to transport explosive/toxic liquids in chemical industries, and to convey slurries in mining industries. Little information was published about the performance of air lift pump handling slurry flows.

ملخص البحث

In this study the performance of an airlift pump pumping slurry flow was investigated experimentally. Experiments were conducted for three submergence ratios (0.4, 0.6 & 0.8) with different air injection pressure (0.125 bars to 2 bars). The riser pipe is 205 cm length with 18 mm in diameter. Air injector height is 30 cm from the bottom of the mixing box.



Tenth International Congress of Fluid Dynamics American Society of Mechanical Engineers, ASME, Proceedings of ICFD10

اسم المؤتمر

16 - 19 / 12 / 2010

تاريخ المشاركة

Ain Soukhna / Red Sea / Egypt

مكان المؤتمر

Effect of Oil - in Water Concentration on the Performance of Centrifugal Pump

عنوان البحث

The performance characteristics of a centrifugal pump (Pedrollo type) have been experimentally investigated using different oil concentrations ranging from 0 to 15 wt% of oil. The flow behavior of different oil/water mixtures has been inspected using a test rig with 50 mm diameter PVC pipes with various fittings and valves. Pressure taps were provided in the suction and delivery lines of the pump to measure the total head developed by the pump.

ملخص البحث

AES - ATEMA 2011 International Conference on Advances & Trends in Engineering & their Applications

اسم المؤتمر

11 - 15 / 7 / 2011

تاريخ المشاركة

Riga / Latvia: TBA

مكان المؤتمر

Pneumatic Sand Lifting during Dredging Process

عنوان البحث

Laboratory experiments have been performed on the flow of sand, water and air through a vertical pipe in order to study the gas-lift technique for oil-water flows for three submergence ratios (0.4, 0.6 & 0.8) with different air injection pressure (0.125 bars to 2 bars). The riser pipe is 205 cm length with 18 mm in diameter. Air injector height is 30 cm from the bottom of the mixing box. Three holes air injector was used (4 mm diameter each). Different particles were used. Experiments investigated the effect of the submergence ratios on both solid mass flow rate and liquid mass flow rate and also the overall pump efficiency. The results indicated that the liquid mass flow rate increases with increasing the submergence ratio and decreasing the density of solid particles used. While the solid mass flow rate is dependent on the solid particle diameter at high submergence ratio and on the density of the particle at lower submergence ratio.

ملخص البحث

9th Int. Conference, AES - ATEMA, Montreal, Canada

اسم المؤتمر

1 - 5 / 8 / 2011

تاريخ المشاركة

Montreal / Canada

مكان المؤتمر

Analytical Analysis of Paneled Beam Floor Slabs

عنوان البحث

Most solutions to the problem of paneled beam floor slabs were based on the assumption that the torsional rigidity of the elements is neglected. This assumption has the advantage of simplifying the method of analysis by reducing the degree of redundancy of the problem. The adequacy of the solution actually depends on the relative rigidity of the elements of the floor, mainly the slab, and the paneled beams. As the slab thickness increases, the torsional rigidity of the slab also increases and consequently the internal actions on the paneled beams will be reduced. Such situations also occurs in the case of reinforced concrete bridges since the slab has to withstand the local effect of heavy concentrated loads, its thickness is usually so substantial that composite action of the grid beams and slab system must be taken into account since the torsional rigidity practically controls the whole state of strain.

ملخص البحث

This paper investigates the effects of torsional rigidity of the elements of paneled beam floor slabs. An analytical method was developed using different boundary conditions, number of panels in each direction and different stiffness of both the slab and the grid beams. The effect of the torsional rigidity was considered by using a finite element model that has been used to modify the analytical method. Results are presented in the form of tables and graphs for different number of panels and boundary conditions, which provide a powerful tool for the design of such slabs.

ملخص البحث

القسم: الهندسة الميكانيكية

١ / ٨ إسم عضو هيئة التدريس: أ. د. عادل عبدالرحمن

International Conference on Mathematical Models for Engineering Science (MMES 10)

اسم المؤتمر

30 / 2 - 11 / 12 / 2010

تاريخ المشاركة

Puerto De La Cruz / Tenerife / Canary Islands / Spain

مكان المؤتمر

An Abrasive Waterjet Model for Cutting Ceramics

عنوان البحث

Advanced engineering ceramic materials such as silicon carbides and silicon nitride have been used in many engineering applications. Cutting of such materials with abrasive waterjet is becoming the most recent cutting technique for its inherent advantages. In the present study, an elastic-plastic erosion model was adopted to develop an abrasive waterjet model for cutting brittle materials. As a result, a cutting model based on fracture mechanics was derived and introduced. The suggested model predicts the maximum depth of cut of the target material as a function of the fracture toughness and hardness, as well as process parameters. The maximum depth of cut predicted by the suggested model was compared with published experimental results for three types of ceramics. The effect of process parameters on the maximum depth of cut for a given ceramic material is also studied and compared with experimental work. The comparison reveals that there is a good agreement between the model predictions and experimental results, where the difference between the predicted and experimental values of the maximum depth of cut was found to take an average value of 10%.

ملخص البحث

القسم: الهندسة الميكانيكية

١ / ٩ إسم عضو هيئة التدريس: أ. د. عادل عبدالرحمن

6th International Conference & Exhibition on Ecological Vehicles and Renewable Energies (EVER 2011)

اسم المؤتمر

30 - 3 / 4 / 2011

تاريخ المشاركة

Monte - Carlo / Monaco

مكان المؤتمر

Using a Molecular Diffusion - Based EGR with a Diesel Engine

عنوان البحث

The present experimental work investigates and demonstrates a technique for reducing particles from exhaust gas recirculation (EGR). The method relies on the principle of Brownian diffusion of particles and molecules. Diffusion coefficients for molecules such as CO₂, H₂O and O₂ are several orders of magnitude higher than for typical exhaust particles. Therefore, a clean air stream of an engine intake air, passing next to an exhaust stream, portioned by a perforated tube, should become enriched with high concentration exhaust constituents such as CO₂, H₂O, NO_x, HC and loses oxygen molecules via molecular diffusion while exhaust particulate diffusion to clean air stream will be insignificant. In essence, gas-phase equilibrium between the exhaust stream and clean air stream is reached in a relatively short time, while particle phase equilibrium is relatively slow. To explore this phenomenon, a particle-free EGR exchanger (PF-EGR-E) was constructed. The exchanger is a shell-and-tube type made of copper with perforated tube section.

ملخص البحث

A portion of the exhaust gas is recirculated to the engine intake through a pressure pulsation tank. Exhaust gas is the tube fluid and intake air is the shell fluid. Volume flow rates for both exhaust and intake air are controlled to be equal at different flow rates. The experiment was performed at four engine speeds: 900, 1200, 1500 and 1800 rpm. At each speed the tests were performed at no-load, half-load and full-load conditions. Different EGR percentages were applied on each load condition ranging from 0% EGR to 20% EGR. Measurements for NOX, HC, CO₂, O₂, CO and PM were recorded up-stream and down-stream of the (PF-EGR-E). The experiments showed that up to 88% particulate matter reduction was achieved at higher EGR rates using this technique.

ملخص البحث

القسم: هندسة الحاسبات والمعلوماتية

١٠ / ١ اسم عضو هيئة التدريس: أ. د. علي مسعود حيدر

International Conference, NOLTA'2010

اسم المؤتمر

5 - 8 / 9 / 2010

تاريخ المشاركة

Krakow / Poland

مكان المؤتمر

Residue to Weighted Converter for the Quinary Moduli Set $\{5n - 2, 5n - 1, 5n\}$

عنوان البحث

The residue number system (RNS) is a carry-free number system which can support high-speed and parallel arithmetic. One of the major issues in efficient design of RNS systems is the residue to weighted conversion which is an important issue concerning the utilization of RNS numbers in digital signal processing (DSP) applications. We present here an efficient design of residue to weighted converter for the newly introduced quinary moduli set $\{5n - 2, 5n - 1, 5n\}$, based on mixed radix conversion (MRC) algorithm. The proposed residue to weighted converter is adder-based and memory-less which can result in high-performance hardware. The proposed residue to weighted converter has better performance and also eliminates the use of multiplier, compared to the last work.

ملخص البحث

١١ / ١

10th International Symposium on Signals, Circuits & Systems ISSCS 2011

اسم المؤتمر

30 / 6 / 2010 - 6 / 7 / 2010

تاريخ المشاركة

Iasi / Romania

مكان المؤتمر

Octal to Binary Conversion Using Multi - Input Floating Gate CMOS

عنوان البحث

Multiple-input floating gate MIFG-MOSFETs and Floating Gate Potential Diagrams FPD used for conversion of quaternary-valued input and octal-valued input into corresponding binary-valued output in CMOS integrated circuit design environment. The method is demonstrated through the design of a circuit for conversion of quaternary quats into the corresponding binary bits (binary 00 - 11) and for conversion of octal octets into the corresponding binary bits (binary 000 - 111) in a standard 1.5 μ m digital CMOS technology. The novelty of this method is the simplicity of conversion where the output of the convertor can be directly connected to the binary CMOS circuits without the need of any interface due the compatibility of this convertor with the present CMOS process.

ملخص البحث

CEGAR 5, ASEC 2010, the 5th Civil Engineering Conference in Asian Region &

اسم المؤتمر

Australian Structural Engineering Conference

8 - 12 / 8 / 2010

تاريخ المشاركة

Sydney / Australia

مكان المؤتمر

Planning, Modeling & Control of Logistic Systems: The Optimization of Seaport Container Terminals

عنوان البحث

The development of comprehensive models for strategic and tactical planning of container terminals offers significant research opportunities, as well as the automation of container terminals, that is real-time decision and control of operations. For this reason, both new models and appropriate solution methods are required. The queue model described in this paper for the optimization of operations inside maritime container terminals is just an aggregate model for the strategic and tactical planning of terminals; the purpose, at the strategic level, is that of dimensioning the system, in terms of number of handling equipment, lay-out and size of the terminal, and so on. Moreover, at a tactical-operational level, the idea proposed in this work is the integration of the queue model with a simulation tool able to reproduce the real operativity of the terminal. A modeling approach is proposed in this field. This model is devoted to the optimization of container transfers in a seaport container terminal, in which the position and the movement of containers are represented by a set of queues, whose dynamic evolutions are described by discrete-time equations. The problem, aiming at minimizing the transfer delays of containers in the terminal, is stated as an optimal control problem whose solution is sought by adopting a receding-horizon strategy. This model and the relative optimization problem can be applied for the strategic planning or at a tactical-operational level; for both the cases, the application to real case studies is presented and the relative results are provided.

ملخص البحث

Seventh Alexandria International Conference on Structural & Geotechnical

اسم المؤتمر

Engineering, 7AICSGE, PP. ST121 - ST138, 27th

29 / 12 / 2010

تاريخ المشاركة

Alexandria / Egypt

مكان المؤتمر

Response of Various Composite - Beam Systems to Quasi - Static Bending Loads

عنوان البحث

The successful interaction between concrete and steel has inspired researchers to develop advanced framing systems for composite construction. Recently, composite systems have been implemented to support both gravity and lateral loads. Steel and concrete can be combined together in various configurations to assure composite construction. This paper will highlight on four different types of composite beams. The first type represents reinforced concrete T-shaped beams confined by structural steel members. The second composite system comprises steel tubes filled with concrete. The third type consists of an open web steel joist (truss) encased in reinforced concrete. The fourth composite system represents rectangular shaped RC beams strengthened by top and bottom steel plates with shear connectors. An extensive experimental study is carried to study the flexural behavior of all types of the above mentioned composite beams. Four groups of various composite specimens have been constructed and tested as simple beams under two quasi-static loads. Test results for all composite beam systems are presented and discussed revealing significant enhancement in the flexural behavior.

ملخص البحث

Seventh Alexandria International Conference on Structural & Geotechnical

اسم المؤتمر

Engineering, 7AICSGE, PP. ST121 - ST138, 27th

29 / 12 / 2010

تاريخ المشاركة

Alexandria / Egypt

مكان المؤتمر

Optimization of Wall - Frame Resisting System in Buildings Subjected to Seismic Loads

عنوان البحث

A reinforced concrete dual lateral resisting system remains to structural engineers as one the most practical and preferred system, in moderate and high-rise buildings, to resist lateral forces generating from wind or earthquake effects. Frames deform under the effect of lateral forces primarily in a shear mode of deformation, whereas structural walls behave like vertical cantilevers with dominant flexural deformation. The contributions of walls and frames in a dual system are strongly influenced by the dynamic response characteristics and the development of plastic hinges during major earthquakes. These contributions may be quite different from what predicted by conventional elastic methods of analysis. In such events, elastic analysis are likely to be inappropriate and misleading, in particular, the common practice of allocating a portion of the lateral forces to the frames and the remainder to the walls, which are then independently analyzed. The purpose of the present research is to study the effect of building height on the contribution of each individual system in resisting seismic forces by using computer software based on the finite element method. A three dimensional model of an R/C building structure will be prepared and is subjected to a dynamic time history loading. Non-linear analysis of a four story study building will be performed; these steps will be repeated for eight, twelve, sixteen, as well as twenty story study buildings. The study buildings will lead to major findings that may include but not limited to: Firstly, a comparison between results of elastic-static and non-linear dynamic analyses; secondly, defining criteria which lead to an optimal use of dual system in term of adequate contribution ratios of lateral shear between walls and frames depending on the overall height of the study building; and lastly, being able to predict realistic behavior of a dual system.

ملخص البحث

Power & Energy Society General Meeting, 2010 IEEE

اسم المؤتمر

25 - 29 / 7 / 2010

تاريخ المشاركة

Minneapolis / MN / USA

مكان المؤتمر

A Novel Technique to Eliminate the Effect of Decaying DC Component on DFT Based Phasor Estimation

عنوان البحث

This paper describes a novel technique to eliminate the effect of decaying direct current (DC) component on DFT based phasor estimation. This technique is based on estimating the phasor of a sinusoidal wave corrupted by a DC component at an instant of time. Another phasor is estimated after half cycle from the instant of estimating the first one. The two phasors are added and a mathematical expression for the decaying DC component is derived. A phasor corresponding to the decaying DC component is calculated from this mathematical expression. The decaying DC component can be eliminated by subtracting this phasor from the phasor corresponding to a sinusoidal component corrupted by a DC component. The simulation results show the accuracy of the algorithm in calculating the fundamental phasor value regardless of the DC content in the input signal. This technique is compared to the most recent techniques for eliminating the effect of DC component on the DFT based phasor estimation methods.

ملخص البحث

The 10Th International Conference for Enhanced Building Operations (ICEBO 2010)

26 - 28 / 10 / 2010

Kuwait

Proposal for an Adsorption Solar - Driven Air - Conditioning Unit for Public Offices

A simple prototype model is designed to investigate the performance of adsorption air-conditioning system that can be driven entirely by solar energy. The designed model is aimed at replacing the conventional vapor compression air-conditioning systems which are reasonable for the global warming. The proposed model is supposed to be used in conditioning the governmental offices during the working hours in the weekdays when both the sunshine and the need for air-conditioning reach their maximum levels at the same instance. Solar adsorption refrigeration devices have no moving parts consequently they are noiseless, non-corrosive, cheap to maintain, long lasting in addition to being environmentally friendly with zero ozone depletion as well as zero global warming potentials. For these reasons, the research activities are of increasing interest in this aspect in order to provide optimum solutions for the crucial points that impede making these systems capable to meet the criteria for commercialization.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

١/١٧

The 10th International Congress of Fluid Dynamics (ICFD 10)

16 - 19 / 12 / 2010

Ain Soukhna / Red Sea / Egypt

Better Predictions of Fully Developed Flow Over Wavy Wall Using Classical k - ε Model

This paper aims at improving and enhancing the predictability of the classical turbulence mathematical models of flows over complex configurations with increasing Reynolds numbers to improve the design of the realistic applications. For this purpose, turbulent flow over a sinusoidal solid surface is investigated using two versions of the standard turbulence model. The boundary wave in the mainstream direction causes periodic pressure gradient, successive acceleration and deceleration, and flow separation. The wavy channel is chosen since the prediction of the separation and reattachment points of the inner flow has been a challenging problem for the last three decades and huge accumulated results of the experimental and numerical approaches are available in the literature. The investigation is performed within the framework of the 2-D modeling to simplify the involved rigorous mathematical processing and to introduce a reliable physical interpretation of the numerical results. The predicted results are validated against the available results of the direct numerical simulations DNSs and experimental works at moderate Reynolds numbers with the recirculation regions recaptured well. This comparative analysis has proved that the flow in the recirculation regions is sensitive to the near-wall grid refinement, with interesting level of predictability and clear shortcomings of the available published results. Redistribution of the grid points in the near wall region provides better predictions of the skin friction as well as the recirculation zones. The influences of alternating pressure gradients induced by alternating surface curvatures, multiple separations and reattachments, higher wave steepness ratios and higher Reynolds number of order are clarified. The recirculation regions become smaller and diminish at higher Reynolds numbers considered.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

القسم: الهندسة الكهربائية – شعبة القوى	١/١٨ إسم عضو هيئة التدريس: د. راجي حمدي
2010 AGU Fall Meeting	اسم المؤتمر
13 - 17 / 12 / 2010	تاريخ المشاركة
San Francisco / USA	مكان المؤتمر
Renewable Energy Resources in Lebanon	عنوان البحث
This work reviews the status of Energy in Lebanon, the installed Renewable Energy projects, and the potential projects. It also reviews the stakeholders in the field of RE in Lebanon.	ملخص البحث

القسم: الهندسة الصناعية والإدارية	١/١٩ إسم عضو هيئة التدريس: د. هادي أبو شقرا
International Conference on Applied Mechanics, Materials & Manufacturing	اسم المؤتمر
13 - 15 / 12 / 2010	تاريخ المشاركة
Sultan Qaboos University	مكان المؤتمر
Assessing the Effect of Temperature on Fabric Washing Powder Under Stress	عنوان البحث
Fabric washing powder used in this study was manufactured, stored and used in a climate with great fluctuation temperatures. The powder is packaged in sachets of around 25g each. The sachets are exposed to large day-night variations in temperature in the supply chain. It has been found that caking has occurred in some of these sachets to the extent that the material is no longer free flowing. Consolidation tests show the strengths of compacts formed at ambient temperature are weak. The work presented in this study represents the first of its kind in published literature in relating the effect of temperature in-corporation with applied compressive loads on cake formation. Even though the sachet provides effective protection and is completely impermeable, changes in temperature still change the condition of the powder within it. The experimental work described in this study aims to illustrate how oscillating temperature during a compressive test can increase the strength of a weak compact formed at a small load. Examination of the effect of temperature cycling on the behaviour of the material under consolidation has shown some thermal expansion and contraction of the samples when the temperature oscillates. The thermal expansion-contraction resulted in powder compacts greater than that resulted at constant temperature. For each temperature cycle the powder showed further appetite for consolidation, suggesting that repeated cycles over a period of several months might contribute to caking.	ملخص البحث

القسم: الهندسة الميكانيكية	١/٢٠ إسم عضو هيئة التدريس: د. أسامة مخيمر
22nd International Symposium on Dynamics of Vehicles on Roads & Tracks	اسم المؤتمر
14 - 19 / 8 / 2011	تاريخ المشاركة
Manchester Metropolitan University / UK	مكان المؤتمر
Influence of Independent Steer & Drive/Brake Force Distribution on the Handling Characteristics of Articulated Vehicles	عنوان البحث
Various control systems have been successively developed to improve vehicle-handling performance. Significant researches have been reported on the integration of two or more controllers. These integrated control schemes all aim to improve vehicle handling and stability under severe driving condition. Most of these systems are available for single passenger cars, but not for heavier or complex vehicles, such as an articulated heavy-duty vehicle, or lighter vehicle configuration (e.g. passenger car-trailer combination).	ملخص البحث

However, when driving a multi-unit vehicle the driver does not have enough information on the behavior of the rear unit(s), thus his/her action (steering, braking, acceleration) mainly depends on the actual state of the towing vehicle. From the forgoing, the stability problems of light and heavy articulated vehicles are in the center of interest of the vehicle dynamicists.

In the AVEC08, the author proposed an integrated control type of direct yaw moment plus active rear wheel steering plus active front wheel steering (DYC+RWS+FWS) aiming at utilizing overall tire ability to maximize both stability limit and responsiveness of a car-caravan combination. The total lateral force and the total yaw moment were introduced using model following control. DYC+RWS+FWS is an intelligent and sophisticated control system but it is still practical viewpoints and simple force sharing tire load. However, it is not easy to determine how much amount of longitudinal and lateral forces required for each tire in order to obtain the target lateral force and yaw moment. In another words, how to tune the entire set of longitudinal and lateral forces required to be generated at the tires to achieve the ideal performance of a combined vehicle is still under investigation. So, the purpose of this paper is to present an optimization technique to find out how the tires should share longitudinal and lateral forces in order to achieve the optimum performance of a tire under the assumption that all the four wheels can be individually steered and driven/braked using a complete steer, brake and drive by wire system (i.e. to achieve vehicle optimal performance, it is necessary to control each tire according to its capacity). It is essential to know the lateral force (L_y) acting at the hitch point to introduce the control laws. It is also essential to know the side slip angle for the control. Under the assumption that the lateral force (L_y) can be measured, the model observer is sued for the side angle estimation. The block diagram, which summarizes the main idea of the above control method, is shown in the following figure.

This sounds unrealistic from today's practical viewpoint. However, it is included in the study for two reasons. It represents the absolute vehicle optimum performance governed by physical limits, and can be used as the target reference for practical designs. Secondly, examining these upper limits learns deep insight of the dynamics behaviors of the vehicle.

The simulation model is composed of a 15-degree-of-freedom non-linear model with a brush type, combined slip tire model. The results are compared with combined control type of DYC+RWS+FWS. The robustness of the vehicle motion with the proposed control to the coefficient of friction variation as well as the effect of steering angle amplitude is discussed. The computer simulation results show that the influence of the optimum distribution method is significantly apparent.

Significant benefits could be expected if they were automatically generated from models expressed in a dedicated modeling language.

In contrast with Hardware Description Languages (HDLs), that focus on the internal structure and behavior of an electronic board of chip, Hardware Architecture Description Languages consider hardware as a platform for software execution. Such a platform will be described in terms of low-level programming interface (processor instruction set), resources (processing elements, memory and peripheral devices) and elementary services (arithmetic and logic operations, bus transactions).

This paper gives an overview of HARMLESS (Hardware Architecture Modeling Language for Embedded Software Simulation), a new domain-specific language for modeling embedded hardware platforms. HARMLESS and its associated tools follow the Model - Driven Engineering philosophy: Metamodeling and model transformations.

Computational Intelligence, Modelling & Simulation (CIMSIM), 2010 Second International Conference On

اسم المؤتمر

28 - 30 / 9 / 2010

تاريخ المشاركة

Bali / India

مكان المؤتمر

Error Correction of Noisy Interleaved Block Ciphers

عنوان البحث

Correction of noisy cipher is a challenging task. Classical error detection and correction methods are not suitable for encrypted data. Previous work has been done on correcting noisy block ciphers using cipher and plaintext characteristics. For certain amount of errors, when error correction using cipher characteristics fails, the language properties of plaintext data were used, instead, to eliminate noise. However, this method requires an iterative process, and there are cases that may occur when unique solution cannot be achieved. In this paper, error detection and correction is performed at the receiver end, without any changes to the encryption algorithm, using only cipher characteristics. Interleaving the ciphertext before transmission and deinterleaving after reception cause bursts of channel errors to be spread out in time, and, thus, to be in the correction capability of, only, cipher characteristic approach.

ملخص البحث

٢. الأبحاث المشتركة

Seventh Alexandria International Conference on Structural & Geotechnical Engineering, 7AICSGE, PP. ST121 - ST138, 27th

اسم المؤتمر

29 / 12 / 2010

تاريخ المشاركة

Alexandria / Egypt

مكان المؤتمر

Optimization of Wall - Frame Resisting System in Buildings Subjected to Seismic Loads

عنوان البحث

A reinforced concrete dual lateral resisting system remains to structural engineers as one the most practical and preferred system, in moderate and high-rise buildings, to resist lateral forces generating from wind or earthquake effects.

ملخص البحث

Frames deform under the effect of lateral forces primarily in a shear mode of deformation, whereas structural walls behave like vertical cantilevers with dominant flexural deformation. The contributions of walls and frames in a dual system are strongly influenced by the dynamic response characteristics and the development of plastic hinges during major earthquakes. These contributions may be quite different from what predicted by conventional elastic methods of analysis. In such events, elastic analysis are likely to be inappropriate and misleading, in particular, the common practice of allocating a portion of the lateral forces to the frames and the remainder to the walls, which are then independently analyzed. The purpose of the present research is to study the effect of building height on the contribution of each individual system in resisting seismic forces by using computer software based on the finite element method. A three dimensional model of an R/C building structure will be prepared and is subjected to a dynamic time history loading. Non-linear analysis of a four story study building will be performed; these steps will be repeated for eight, twelve, sixteen, as well as twenty story study buildings. The study buildings will lead to major findings that may include but not limited to: Firstly, a comparison between results of elastic-static and non-linear dynamic analyses; secondly, defining criteria which lead to an optimal use of dual system in term of adequate contribution ratios of lateral shear between walls and frames depending on the overall height of the study building; and lastly, being able to predict realistic behavior of a dual system.

Seventh Alexandria International Conference on Structural & Geotechnical Engineering, 7AICSGE, PP. ST121 - ST138, 27th

اسم المؤتمر

29 / 12 / 2010

تاريخ المشاركة

Alexandria / Egypt

مكان المؤتمر

Experimental Evaluation of the Flexural Behavior of Encased Steel Joists

عنوان البحث

Encasement of structural steel sections in ordinary reinforced concrete (RC) has been implemented in several engineering works since it provides the perfect composite behavior between structural steel and concrete materials. The present experimental study focuses on evaluating the strength, stiffness and ductility of steel joists encased in either RC or fiber RC beams. Steel truss joists were encased in normal and in fiber reinforced concrete and the flexural behavior of these composite beams were determined experimentally. Minimal reinforcing steel is used in these composite beams to prevent concrete splitting failure. Twelve third-scale specimens were constructed and tested in the study. The load-deflection curves of the specimens, which reflect their behavior in the elastic and damaged zones, were plotted experimentally. A comparison was made among the behaviors of the conventional RC beams based on ordinary reinforcement with the proposed composite beams having steel joists with cross sectional areas equivalent to the reinforcement percentages in RC beams. The tensile force in the bottom chord of some steel joists was determined experimentally using electrical strain gauges to evaluate the contribution of reinforcement in flexural resistance. An optimal steel-concrete reinforcement ratio was determined in order to achieve maximum flexural and shear strength. Encasement of a steel truss increases its stiffness, energy absorption, and reduces the possibility of local buckling in compression members besides enhancement in its fire resistance. The ductility of the RC beam is greatly enhanced. Such new composite system can be prefabricated and quickly erected for long span beams.

ملخص البحث

١. الأبحاث المنشورة

القسم: الهندسة المدنية

١/١ إسم عضو هيئة التدريس: د. هشام الباشاد. عدنان المصري

Journal of Construction & Building Materials, ELSEVIER

اسم المجلة أو الدورية

Vol. 25 / Issue 2 / PP. 1037 - 1043 / February 2011

تاريخ النشر

Behavior of T-shaped Reinforced Concrete Beams Partially Confined by Structural Steel

عنوان البحث

External confinement of reinforced concrete (R/C) members with structural steel sections or fiber reinforcing wraps is commonly used to improve the flexural behavior of structural members. Flexural strengthening of R/C beams by external steel members is among the most effective and convenient techniques. A study is presented in this paper investigating the flexural behavior of R/C beams having T cross-sections partially confined (P/C) by a combination of various steel members connected together by intermittent batten plates. Four R/C specimens, representing dropped beams in solid slabs, were tested. One control beam had no confinement whereas the three other beams had four steel angles simply wrapped and tied around the stem by batten plates, two angles at the bottom corners of the stem and the other two angles at the stem-flange junctions. Two plates were placed on the top surface of the flange and connected by studs to the two angles at the bottom of the flange. The resulting P/C beams are categorized as partial composite beams because no shear connectors were used between the R/C beam and the jacketing bottom-tension steel angles as in the case of conventional composite beams. All specimens were tested in positive bending under two points loading. Test results revealed an enhancement in the flexural behavior, particularly in the post-yield range of loading, and ductility due to the proposed strengthening and partial composite effect. The number and spacing of the intermittent battens played a significant role in the behavior of the strengthened specimens. Analytical values of loads and deformations at yield and ultimate loading proposed in this study showed good agreement with the measured values and can be practically implemented for strengthening design.

ملخص البحث

٢. الأبحاث المقبولة للنشر

القسم: الهندسة الكهربائية – شعبة الاتصالات

٢/١ إسم عضو هيئة التدريس: أ. د. محمد البنا

Ain Shams Journal of Electrical Engineering

اسم المجلة أو الدورية

Encoder / Decoder for IEEE 802.11n

عنوان البحث

Low density parity check (LDPC) codes have attracted significant research interest thanks to their excellent error-correcting abilities and high level of processing parallelism. This paper describes an FPGA implementation of LDPC encoder/decoder compliant to IEEE 802.11n.

ملخص البحث

Architecture for LDPC encoder with new parity check matrix manipulation is proposed which provide low area low power design. A prototype of LDPC decoder, based on the well known layered decoding algorithm, has been implemented, synthesized and tested on a Xilinx FPGA. The proposed Architecture could be reconfigured to support all IEEE802. 11n rates, 1 / 2, 2 / 3, 3 / 4 and 5 / 6, and code lengths, 648, 1296, and 1944. The total power of the system is 360 mWatt which makes it suitable for wireless communication for long battery life.

ملخص البحث

القسم: الهندسة المدنية

٢/٢ إسم عضو هيئة التدريس: أ. د. يحيى ضو

ACI Material Journal

اسم المجلة أو الدورية

Simulation of Water Pressure on Washout of Underwater Concrete Repair

عنوان البحث

A comprehensive research project was undertaken to evaluate the effect of hydrostatic pressure and interfacial concrete/water velocity on the performance of underwater concrete (UWC) designated for repair applications. Washout loss was determined on 33 optimized mixtures using the CRD C61 test method, as well as a newly developed device enabling the simulation of concrete washout placed at various depths down to 140 m (460 ft) below water surface level.

ملخص البحث

Test results showed that washout loss of UWC increases with the increase in water head. Depending on the mixture composition, a critical threshold water depth can be found, beyond which significant washout loss could take place. The effect of decreasing the interfacial concrete/water velocity from 2.5 to 0.5 m/s (8.2 to 1.6 ft/s) was found to reduce washout loss for a given depth of casting or enable the casting in deeper water for a given washout resistance. Good correlations were obtained between washout loss determined as per the CRD C61 test method and the washout loss derived from estimates given a certain interfacial concrete/water velocity and water depth.

القسم: الهندسة الميكانيكية

٢/٣ إسم عضو هيئة التدريس: أ. د. عادل عبد الرحمن

International Journal of Global Warming

اسم المجلة أو الدورية

On the Dispersion Models & Atmospheric Dispersion

عنوان البحث

As an air pollutant is transported from a source to a potential receptor the pollutant disperses into the surrounding air so that it arrives at a much lower concentration than it was on leaving the source. Strict environmental regulations worldwide resulted in an ever growing concern about the validity and reliability of air quality dispersion models. The present work is a try to evaluate the applicability of dispersion models from an industrial source. Two examples of the air quality dispersion models are considered here; the classical Gaussian plume model by Sutton (1932) and PRISE (Plume Rise) model by Henderson-Sellers and Allen (1985). The results obtained suggest that the Classical Gaussian Plume model is reliable and applicable far from the source (5000 m and beyond); while PRISE model is applicable in the close region (within a few hundred meters) from the source.

ملخص البحث

٢/٤

WSEAS Transaction on Fluid Mechanics

اسم المجلة أو الدورية

A Review of Effects of Initial & Boundary Conditions on Turbulent Jets

عنوان البحث

On the basis of available knowledge, it is shown that different mechanisms may have control in different jet flows or in different regions of a jet flow.

ملخص البحث



In free jet flows, the downstream region is dominated by turbulence structure whereas coherent eddy-structure can have a strong influence on the near field, particularly for low-Reynolds number jet flows. At present, however, it has become a common belief that coherent-eddy structures determine, to a large degree, the evolution and dynamics of turbulent jet flows. The following article is an attempt to review the current information on round turbulent jet flows. In so doing, the influence of the jet origin (initial conditions) and the boundary conditions (presence or absence of endplate, side walls, and/or jet enclosure) on the jet flow structure is considered.

Multiplier Free & Memory Less Residue Number System to Weighted Converter for the Quinary Module Set $\{5n - 2 / 5n - 1 / 5n\}$

The Residue Number System (RNS) is a carry-free number system which can support high-speed and parallel arithmetic. One of the major issues in efficient design of RNS systems is the residue to weighted conversion which is an important issue concerning the utilization of RNS numbers in Digital Signal Processing (DSP) applications. We present here an efficient design of residue to weighted converter for the newly introduced quinary module set $\{5n - 2, 5n - 1, 5n\}$, based on Mixed-Radix Conversion (MRC) algorithm. The proposed residue to weighted converter is adder-based and memory-less which can result in high-performance hardware. The proposed residue to weighted converter has better performance and also eliminates the use of multiplier, compared to the last work (Hosseinzadeh and Navi, 2007).

المشروعات البحثية على المستوى المحلي

Use of CEM to Evaluate WR of Underwater Concrete

عنوان المشروع البحثي

ملخص عن المشروع البحثي

There is no doubt that the CEM approach constitutes a major step towards simplifying and speeding-up the experimental testing programs to be done on concrete. Because of easier preparation, mixing, and sampling, CEM mixtures consume less materials, energy, and time for testing which makes them useful to contractors, engineers, and researchers for assessing the performance and suitability of a given admixture and mix design. Therefore, the objectives of the present proposal can be divided as follows:

- Developing a mini-pressurized tube having smaller dimensions compared to the original 1200-mm high tube shown in Fig.2. The mini-pressurized tube will be fabricated in a way to receive around 0.5 kg of CEM, compared to the 4-kg of concrete that were used to evaluate washout using the original pressurized tube.
- Referring to the concrete mixtures developed throughout phases I and II of the project funded by NCSR, CEM mixtures will be produced and tested to validate washout loss variations using the mini-pressurized tube. Particularly, the effect of removing the coarse aggregate particles on washout variations should be highlighted.
- Evaluating the effect of hydrostatic water head as well as various CEM/water velocities on washout loss of CEM mixtures. This will enable proposing some recommendations on the use and performance of underwater concrete through CEM testing.
- Establishing correlations between underwater concrete and underwater CEM (in terms of washout loss and compressive/flexural strength), in order to optimize mix proportions while reducing and simplifying testing protocols.
- Realizing statistical studies and graphs based on contour lines that can accurately identify the effect of any given parameter on washout loss.
- Technology transfer of all obtained data to the construction industry through publication of results in refereed journals and participation in local and international conferences.

المجلس الوطني للبحوث العلمية.

جهة تمويل المشروع

٢٠١١ - ٢٠١٢

الفترة الزمنية المحددة للإنتهاء

من المشروع

Faculty of Science | كلية العلوم

تطرقت الكلية إلى العديد من الموضوعات البحثية الجديدة في شتى المجالات منها علي سبيل المثال لا الحصر مجالات التكنولوجيا الحيوية وتكنولوجيا المعلومات وتكنولوجيا النانو والمواد فائقة التوصيل ودراسات كيميائية مختلفة علي المركبات فائقة الوزن الجزيئي وأيضا دراسات مستفيضة للملوثات البيئية هذا بالإضافة إلى دراسة الكفاءة لبعض أنواع الكواشف الجديدة المستخدمة في القياس الدقيق للإشعاع لمواجهة الكوارث النووية والإشعاعية. وبذلك سجلت كلية العلوم عدد (٤١) بحثاً علمياً مشاركاً في مؤتمرات محلية وخارجية. بينما عدد الأبحاث المنشورة في المجالات أو الدوريات (٢٤) بحثاً، مقابل (١١) بحثاً مقبولاً للنشر. وجدول رقم ٧ يبين حركة نشر البحوث العلمية للكلية.

جدول رقم (٧): حركة البحوث العلمية بأقسام كلية العلوم للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
1	Canadian Journal of Chemistry	3	Nuclear Instruments & Methods in Physics Research A	الفيزياء
1	Journal of Modern Physics	1	Journal of Theoretical & Computational Chemistry	
-	-	1	International J. of Modern Physics B	
-	-	1	Thin Solid Films	
-	-	1	Radiation Measurements	
2	International Journal of Quantum Chemistry	1	International Journal of Quantum Chemistry	
1	Medical Oncology	1	Journal of Physiology & Biochemistry	العلوم البيولوجية والبيئية
1	Genetic Testing & Molecular Biomarkers	1	Antioxidants & Redox Signaling	
3	Proceedings of the 3rd EMUNI Research Souk	1	Journal of Biochemistry & Biotechnology	
-	-	1	European Journal of Medicinal Chemistry	
-	-	1	Current Analytical Chemistry	الكيمياء
1	ZAAC Journal of Inorganic & General Chemistry	1	ZAAC Journal of Inorganic & General Chemistry	
-	-	1	J. Korean Chem. Soc. JKCSEZ	
-	-	2	Materials Science Forum	

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
-	-	1	International Journal of Chemical Kinetics	الكيمياء
-	-	1	Progress in Reaction Kinetics & Mechanism	
1	Int. J. Math Math Sci	1	International Journal of Applied Mathematics & Physics	الرياضيات
-	-	1	Acta Math Hungar	
-	-	1	East-West J. of Mathematics	
-	-	1	Tamkang Journal of Mathematics	
-	-	1	International Journal of Applied Mathematics	

أما الأبحاث الممولة من قبل المجلس الوطني للبحوث العلمية (CNRS) لهذا العام فهي (٥) بحوث.

ثانياً | المؤتمرات العلمية

١. الأبحاث المنفردة

القسم: الفيزياء	١/١ إسم عضو هيئة التدريس: أ. د. محمود إبراهيم عباس
The 3rd International Symposiums on Nuclear Energy ISNE - 10	اسم المؤتمر
15 - 17 / 12 / 2010	تاريخ المشاركة
Amman / Jordan	مكان المؤتمر
Direct Analytical Method to Calculate the Efficiency of Borehole Scintillation Detectors	عنوان البحث
The borehole scintillation detectors (with central borehole) are useful for the identification and quantification of unknown gamma-ray emitting radionuclides in geological and environmental samples due to the near 4π solid angle that can be obtained with them.	ملخص البحث

In addition, the 4π gamma ray-counting is a well established method for direct activity measurements, and is especially suited for low level gamma activity measurements and neutron activation analysis (NAA). When the neutron activation analysis of volumetric samples is performed by using borehole scintillation detectors, the measurement of gamma activity induced in samples due to fast neutron bombardment is not constant along the length of the sample so the variation of the detector efficiency as a function of hole depth as well as the self absorption of gamma rays by the sample which reduces the values of the absolute efficiencies of the measured system must be known.

ملخص البحث

١/٢

Mediterranean Conference on Innovative Materials & Applications (CIMA - 2011)

15 - 17 / 3 / 2011

Beirut / Lebanon

Analytical Method to Calibrate Cylindrical LaBr₃ (Ce) Scintillation Detector

The cerium-doped lanthanum halide crystals have gained special interest due to their high density and atomic number, which results in excellent scintillation properties and higher detection efficiencies in comparison to NaI(Tl). A new analytical method of efficiency calibration is proposed for cylindrical lanthanum bromide (LaBr₃:Ce) scintillation detectors. This method depends on the accurate analytical calculation of two important factors; the path length d , the photon traverses within the active volume of a gamma detector, and the geometrical solid angle Ω , subtended by the source to the detector at the point of entrance. In addition, the attenuation of photons by the detector housing materials is also treated by calculating the photon path length through these materials. The comparisons with the experimental and Monte Carlo method data reported in the literature indicate that the present method is useful in the efficiency calibration of the cylindrical lanthanum bromide (LaBr₃:Ce) scintillation detectors.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

٢. الأبحاث المشتركة

القسم: الكيمياء

٢/١ إسم الباحث الرئيسي: د. لينا فيومي

أسماء الباحثين المشاركين: أ. د. حنفي هليل - أ. د. حسان حمود

2nd EMUNI Research Souk, Portoroz, Sloveina

14 / 6 / 2010

Egypt

Biosorption of Methylene Blue by Brown Marine Algae (Carolina)

Biosorption experiments were carried out for the removal the cationic dye, methylene blue, from its aqueous solution by the biomass marine algae. The brown alga Carolina which is widely distributed in the Mediterranean Sea at Lebanon coast was used to prepare an alternative low cost biosorbent to remove methylene blue from aqueous solutions. To determine the equilibrium adsorption capacity, the effects of contact time, temperature, pH and adsorbent dosage were studied. Pseudo-second order kinetic model was fitted to the adsorption data. The adsorption follows Langmuir isotherm. The maximum adsorption capacity was estimated as 55 mg/g at 19°C.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

International Conference on Electrical, Computer, Electronic & Communication Engineering (ICECECE 2010)

اسم المؤتمر

28 - 30 / 7 / 2010

تاريخ المشاركة

Paris / France

مكان المؤتمر

A Direct Mathematical Method to Calculate the Efficiency of Bore Hole Cylindrical Detectors

عنوان البحث

Several techniques can be used to determine the total efficiency, including Monte Carlo simulations, semi-empirical methods and experimental measurements. The first technique requires a good definition of the geometry and materials, including the dead layer and window thickness together with an accurate set of cross-sections. The second technique requires two different types of experimental input, the first being from use of sources emitting cascade γ rays and the second from use of sources emitting isolated γ rays in order to cover the wide energy range and provide coincidence-summing corrections, respectively. In the present method we introduce a theoretical approach based on the Direct Statistical method proposed by Selim and Abbas[1 - 24] to calculate the total efficiencies for point, line and thin circular disk sources for scintillation detectors. The present method combines calculation of the path length covered by the photon inside the detector active volume and the geometrical solid angle Ω , to obtain a straightforward mathematical expression for the efficiency calculation. By comparison, the total efficiency values are in good agreement with the theoretical calculations done by Monte Carlo simulation.

ملخص البحث

Experimental Biology

اسم المؤتمر

24 - 28 / 4 / 2010

تاريخ المشاركة

California / USA

مكان المؤتمر

Characterization of Selenoprotein V

عنوان البحث

Selenoprotein V (SelV) is a mammalian selenoprotein encoded on chromosome 19. SelV is a globular protein that occurs in the seminiferous tubules of the testes. Its function is yet unknown. We used bioinformatics programs to study structure-function relationship of SelV. Protein calculator program revealed that the molecular weight of SelV in human is about 37 kDa. Human SelV is a basic protein with isoelectric point of 9.65. Using bioinformatics programs, we predicted that SelV contains 5 exons, where the selenocysteine (sec) residue was predicted to be in exon 2. SECISearch 2.19 program revealed that the selenocysteine insertion sequence (SECIS) element belongs to type I structure. We also predicted that SelV contains three domains: The Nterminal domain is proline-rich; the second domain is the hydrophobic domain containing 20 amino acid residues as well as the selenocysteine residue; and the C-terminal domain which is rich in glutamate and lysine. Further studies are required to understand why mammalian SelV is rich in proline residues and why selenocysteine residue resides in hydrophobic domain in this selenoprotein.

ملخص البحث

Conference on Molecular Aspects of Cell Biology: A Perspective from Computational Physics

اسم المؤتمر

11 - 15 / 10 / 2010

تاريخ المشاركة

Italy

مكان المؤتمر

Structure - Function Relationship of Selenoprotein K Using Bioinformatics

عنوان البحث

The micronutrient selenium plays important roles in human health and these roles may be exerted through its presence in selenoproteins. Among the 25 identified selenoproteins in human is selenoprotein K (SelK), a 94 aminoacid residues membrane protein present in various organisms including mammals, birds, fish and frog and whose exact function is not known yet. Here we used bioinformatics programs and databases in order to predict the structure-function relationship of SelK. We found that SelK is about 10.5 KDa selenoprotein and is highly conserved among mammals with identity more than 90% to human SelK sequence. We found that SelK is a basic protein with isoelectric point around 11.0 in mammals, frogs, birds and fish and it is expressed in various rat tissues. Glycine and argenine were found to be the most common aminoacid residues in SelK. The selenocysteine (Sec) aminoacid residue is located three aminoacid residues from SelK C-terminal end in mammals in a conserved GGUGR sequence. Using bioinformatics programs and NCBI databases we found that a SelK homologue is present in plants where the aminoacid cysteine is located in the position of selenocysteine present in mammalian SelK. A conserved (CGSCCG) sequence is present at the C-terminal end of plant SelK homologues. We found a disordered region in the cytosolic side of SelK containing a conserved SH3 binding motif, preceded by a Ser/Thr phosphorylation site at the position 58 of human SelK. These results obtained using bioinformatics indicate that SelK may be involved in oxidation-reduction reactions in animal and plant cells through the presence of the sequences GGUGR and CGSCCG, respectively. In addition, the function of SelK may be regulated by phosphorylation with a protein kinase at position 58 of SelK.

ملخص البحث

LAAS 17th International Scientific Conference, Lebanese Association for the Advancement of Science

اسم المؤتمر

13 - 14 / 11 / 2010

تاريخ المشاركة

Universite Saint Esprit de Kaslik / Lebanon

مكان المؤتمر

Ion - pairing Effect on Kinetic Study of Aquation of Bromopentaammine cobalt (III) Complex in Malonic Media

عنوان البحث

The aquation of bromopentaammine cobalt (III) complex in the presence of ion-pairing malonate anion in mixed solvent media of water with tertiary butanol (10% - 50%) have been investigated spectro-photometrically at different temperatures (300C - 600C). The thermodynamic and extrathermodynamic parameters of activation have been calculated and discussed in terms of solvent effect on the ion-pair aquation reaction. The determined isokinetic temperatures of these systems indicate the existence of compensation effect arising from solute-solvent interaction. The ion-pair rate constants (kip) are correlated with dielectric constant. The obtained results are consistent with a dissociative mechanism.

ملخص البحث

LAAS 17th International Scientific Conference, Lebanese Association for the Advancement of Science

اسم المؤتمر

13 - 14 / 11 / 2010

تاريخ المشاركة

Universite Saint Esprit de Kaslik / Lebanon

مكان المؤتمر

Kinetic & Thermodynamic Studies of the Solvolysis of trans - [Co(3,4-dmpy)4Cl₂]ClO₄ Complex in Ethylene Glycol Aqueous Mixtures

عنوان البحث

The kinetics of solvolysis trans-dichloro [(3,4-dimethyl pyridine)₄ cobalt(III)] complex have been investigated spectrophotometrically in aqueous-organic solvent media using ethylene glycol as co-solvent added to water (0%-60%)V/V at different temperatures (40°C-55°C). The log of the first order rate constant varies non-linearly with reciprocal of the dielectric constant due to the differential solvation of the initial and transition states. The changes in the enthalpy and the entropy of activation with the mole fraction of the co-solvents shows variations at the composition ranges where the change in solvent structure occurs. Analysis of the solvent effect confirmed a common I_d mechanism for the solvolysis cobalt (III) complex. The application of a free energy to the process of the initial state going to the transition state suggests that the cationic cobalt (III) complexes in the transition state are more stable than the cationic cobalt complexes the initial state in the water + ethylene glycol mixtures.

ملخص البحث

The 17th International Scientific Conference LAAS 17

اسم المؤتمر

12 - 13 / 11 / 2010

تاريخ المشاركة

Beirut / Lebanon

مكان المؤتمر

An Ab Initio Calculation of Low Lying Electronic Sates of the CaF Molecule

عنوان البحث

In recent years, the application of high-resolution laser spectroscopy and molecular-beam techniques in the investigation of alkaline earth monohalides has provided a large amount of precise and detailed spectroscopic information. The experimental data now available stimulated not only the application of various quantum-chemical methods in this field of research but also provided the basis for the development of simple semiclassical ionic-bond models which have been used successfully to describe and to predict many of the special features of group monohalides. The CaF molecule was chosen as a test system since, for this molecule, precise experimental data are available even for the excited states. The electrostatic polarization model and a more sophisticated ligand-field approach have been used to give predictions of dipole moments and other properties of various low-lying electronic states of the CaF system. In order to investigate theoretical calculation of excited electronic states of the molecule CaF, ab initio calculations with MRCI calculations have been used. In this calculation we obtained the spectroscopic constants and the internuclear distance at equilibrium of these excited states. The potential energy curves of the lowest-lying electronic states of CaF molecule have been investigated via CASSCF method. Ca and F atoms have been treated in all electron scheme using a contracted Gaussian basis set. This calculation has been performed via the computational program MOLPRO taking advantage of the graphical user interface GABEDIT. The comparison of these values to the theoretical and experimental results available in the literature shows a good agreement. Many electronic states have been studied here theoretically for the first time.

ملخص البحث

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Spin Orbit Electronic Structure of the Molecule YS

Interest in transition metal monohalides arises because they can be considered as prototypes to understand the role played by the d orbital in bonding, in high-temperature chemistry and chemiluminescent reactions. The diatomic components of Sc, Y, and La atoms with halogen atoms have been investigated as new chemical laser system an ab initio CASSCF and MRCI (single and double excitation plus Davidson correction) calculation have been performed for the molecule Yttrium monosulfide YS. The potential energy curves of the low laying electronic states in the representation $\Omega^{(+/-)}$ (including the spin-orbit (SO) effects) have been calculated along with the corresponding spectroscopic constants. The SO effects are taken into account via a semi-empirical SO pseudo-potential for yttrium atom, while they have been neglected for sulfur. Very good agreement is displayed by comparing the present results with those obtained experimentally. New electronic states have been obtained here, yet their SO components have not been observed or calculated.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

٢/٩

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Electronic Structure of the Low - Lying Electronic States of Alkaline & Alkaline - Earth Molecule

Advances in laser cooling and optical trapping technology have largely renewed interest in the knowledge of the long-range forces between atoms and molecules. Among the various diverse techniques, diatomic molecular spectroscopy has proved to be the most fruitful and precise way to obtain the long-range interactions between two entities as small metal clusters, notably those containing Group II elements characterized by weakly bound states and excited states. From ab initio calculations the potential energy curves have been investigated for the lowest electronic states in the representation of the molecule LiBe, via CASSCF and MRCI (singly and doubly excitation with Davidson correction) calculations. The potential energy curves for the considered states in the representation have been calculated in the range $1.0\text{\AA} \leq r \leq 6.5\text{\AA}$. The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e have been calculated. The comparison of these values to the theoretical and experimental results for the considered electronic states available in the literature shows a very good agreement.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

٢/١٠

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

A Rovibrational Calculation of Low - Lying Electronic States of LiCa Molecule

Among the various diverse techniques, diatomic molecular spectroscopy has proved to be the most fruitful and precise way to obtain the long-range interactions between two entities as small metal clusters, notably those containing Group II elements characterized by weakly bound states and excited states.

اسم المؤتمر

تاريخ المشاركة

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عنوان البحث

ملخص البحث

From ab initio calculations the potential energy curves have been investigated for the lowest electronic states in the representation of the molecule LiCa, via CASSCF and MRCI (single and double excitation with Davidson correction) calculations. Contracted Gaussian basis set have been used for the considered atoms. In the range of internuclear distance r around the equilibrium distance of their ground states, the molecules are assumed to be mainly ionic. The potential energy curves for the considered states in the representation have been calculated in the range $2.0\text{\AA} \leq r \leq 3.5\text{\AA}$. The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e have been calculated by fitting the energy values around the equilibrium position to a polynomial in terms of the internuclear distance, the degrees of these polynomials are determined from the evaluation of the statistical error for the coefficients. By using the canonical functions approach and the cubic spline interpolation between each two consecutive points of the potential energy curves obtained from the ab initio calculation, the eigenvalue E_v and the rotational constant B_v have been calculated for various vibrational levels. The comparison of these values to the theoretical and experimental results available in the literature shows a good agreement. Many electronic.

٢/١١

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Theoretical Calculation of Electronic States of BeH Molecule

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Cold collisions between trapped laser-cooled atoms have been the subject of extensive research in the past years. In contrast to collisions of thermal atoms, the collision process between cold atoms is extremely sensitive to the long-range part of the inter-atomic interaction allowing precise determination of molecular potentials and atomic lifetimes. The light BeH molecule has been extensively studied by ab initio method and serves as a test case for open-shell systems. Partly because of the toxicity of the Be-containing molecules, BeH has been less popular with experimentalists. Watson and Olsson carried out early work on the electronic emission spectra of BeH in the late 1920s and early 1930s. Now, the case of BeH is more demanding due to the existence of near-degeneracy effects and low-lying states of BeH. From ab initio calculations the potential energy curves have been investigated for the lowest electronic states in the representation of the molecule BeH, via CASSCF and MRCI (single and double excitation with Davidson correction) calculations. Contracted Gaussian basis set have been used for the considered atoms. In the range of internuclear distance r around the equilibrium distance of their ground states, the molecules are assumed to be mainly ionic. The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e have been calculated. The comparison of these values to the theoretical and experimental results available in the literature shows a good agreement. Many electronic states have been studied here theoretically for the first time.

٢/١٢

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Electronic Structure of Low Lying states of the ScO Molecule

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

The transition metal oxides are of considerable interest in the high temperature chemistry, they can provide information about the effect of partially filled d and f shells on chemical bonding.

Metal oxides are important in many industrial processes such as superconductors and metal oxide formation in chemical vapor deposition processes. The group IIIA diatomic monoxide ScO, YO, and LO are convenient system for experimental studies of systematic trends in chemical bonding because of the ease of production and the existence of intense, well characterized, visible electronic band system which exhibit large magnetic hyperfine structure. The limited number of valence electron for these simple molecules also makes a quantitative theoretical prediction possible. The importance of ScO molecule explains the interest aroused a long time in the study of the spectra of this molecule and the number of papers on this subject. The potential energy curves of the molecule ScO have been calculated for 28 internuclear distance in the range $1.48\text{\AA} \leq r \leq 2.63\text{\AA}$ in the representation $2s+1\Lambda^{(\pm)}$ via CASSCF method. Multireference CI calculations (single and double excitations with Davidson corrections) were performed by using Gaussian basis sets for the two considered atoms. The harmonic frequency ω_e , the internuclear distance r_e , and the electronic energy with respect to the ground state T_e have been calculated for doublet electronic states where new states have been studied for the first time. The comparison of these values to the theoretical and experimental results for the considered electronic states available in the literature shows a very good agreement.

٢/١٣

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Theoretical Electronic Structure of the Molecule MgH

Interest in alkali dimmers is closely related to developments in the ultra-cold alkali dimmers atom trapping, which are at the root of photoassociation spectroscopy. For such compounds, theoretical prediction of a sufficient accuracy to be useful to experimentalists can be performed. The MgH molecule attracted the attention of the astrophysical community very early. The visible emission of MgH was first observed in the sun, then in many stars. Its quantitative observation is of practical interest, as a probe of the relative abundances of the magnesium isotopes in stellar atmospheres. The early spectroscopic of the visible and ultraviolet emission of MgH relies essentially on the works of Balfour and coworkers. Potential energy curves and spectroscopic constants (T_e , R_e , ω_e , B_e) of low-lying electronic states corresponding to MgH molecule are investigated via CASSCF method with multireference CI calculations (single and double excitations with Davidson corrections). The entire CASSCF configuration space was used as reference in the MRCI calculations, MRCI calculations are performed using the computational chemistry program MOLPRO taking advantage of the graphical user interface GABEDIT. The lowest-lying electronic states have been investigated in the representation below 35000 cm^{-1} of the molecule MgH, our results demonstrated a good accuracy compared with experimental data for several states, and established new results for the first time.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

٢/١٤

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Theoretical & Spectroscopic Studies of the Molecule LiH

In recent years several theoretical and experimental spectroscopic studies were focused on transition metal hydrides, where the nature of transition metal-H bonding and the role of the metal d orbital in the metal H bond are important and should be understood.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Transition metal hydrides are interesting candidates for theoretical studies due to large electron correlation effects and relativistic effects. Both relativistic and electron correlation effects need to be taken into account in the ab initio studies of these molecules. These hydrides possess a large number of densely packed low-lying electronic states of different spatial and spin symmetries. Moreover, the theoretical and experimental studies of these hydrides attain an increasing interest because of their importance in various areas in sciences including Astrophysics, analytical chemistry, and surface science. Since hydrogen is the most abundant element in the universe, metal hydrides are found in the spectra of sunspots and cool stars. Potential energy curves and spectroscopic constants (T_e , R_e , ω_e , B_e) of low-lying electronic states corresponding to LaH molecule are investigated via CASSCF method with multireference CI calculations (single and double excitations with Davidson corrections). The entire CASSCF configuration space was used as reference in the MRCI calculations, MRCI calculations are performed using the computational chemistry program MOLPRO taking advantage of the graphical user interface GABEDIT. The lowest-lying electronic states have been investigated in the representation below 35000 cm^{-1} of the molecule LaH, our results demonstrated a good accuracy compared with experimental data for several states, and established new results for the first time.

The 17th International Scientific Conference LAAS 17

12 - 13 / 11 / 2010

Beirut / Lebanon

Theoretical Study of Low Lying States of the Monohalides SrH Molecule

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Much interest has been devoted to the alkaline earth monohalides. Many experimental and theoretical investigations can be found in the literature. In particular, the low-lying states of these molecules have been investigated spectroscopically by various methods. Emission and absorption spectroscopy with the use of large grating spectrographs, Fourier transform spectroscopy, laser spectroscopy, and a combination of these methods, have been applied in order to reveal the dense structures of, in particular, the alkaline earth monohalides SrH. As is the case of most group II A hydrides, the low lying excited states perturb each other heavily. Avoided crossings of the rovibronic states appear frequently in these molecules. The low-lying states of SrH and many other alkaline earth hydrides have been subjected to several theoretical studies, including quantum-chemical calculations. The potential energy curves of the molecule SrH have been calculated in the representation $2s+1 \Lambda^{(\pm)}$ via CASSCF method. Multireference CI calculations (single and double excitations with Davidson corrections) were performed by using Gaussian basis sets for the two considered atoms. The harmonic frequency ω_e , the internuclear distance r_e , and the electronic energy with respect to the ground state T_e have been calculated for doublet electronic states where new states have been studied for the first time. The comparison of these values to the theoretical and experimental results for the considered electronic states available in the literature shows a very good agreement.

Mediterranean Conference on Innovative Materials & Applications

15 - 17 / 3 / 2011

Beirut / Lebanon

Electronic Structure of the Nanodiatomic Compounds CdS

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

The synthesis and characterization of nanoparticles have attracted intense research lately owing to the unique chemical and physical properties of the nanoparticles and the vast potential for practical application of the composite system incorporating the nanoparticles. The materials have interesting applications in many fields such as electronics, optical, electro-optical devices and photo-catalytic reaction. The Semiconductor CdS nanoparticles has been widely studied and synthesized, because it has unique properties and interesting for photo reactivity and photo catalyst application. The properties of CdS nanoparticles driven mainly by two factors which are the increase in the surface to volume ratio and a drastic changes in the electronic structure of the material due to quantum mechanical effects with decreasing particles size. Because of the lack in the study of the excited electronic states in literature, the potential energy curves, the harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e and the electronic energy with respect to the ground state T_e have been calculated. The comparison of these values to the theoretical and experimental results for the considered electronic states available in the literature shows a very good agreement.

Mediterranean Conference on Innovative Materials & Applications

15 - 17 / 3 / 2011

Beirut / Lebanon

The Low - Lying Excited Electronic States of an Alkali - Earth Compounds

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

The ultra-cold molecular gases of many-body systems is presently an area of explosive growth with relevance to quantum information technologies, quantum simulators and quantum computation in quantum crystal where some molecules embedded in solid parahydrogen have extremely long excited lifetime. These long excited states may be able to use as qubits for quantum computation. Ultracold polar molecules, due to their strong, long range, anisotropic dipole-dipole interactions, may provide access to qualitatively new regimes previously inaccessible to ultracold molecular systems. They might be used as new types of highly correlated many-body quantum states could become accessible such as BCS-like superfluids, supersolid and checkerboard states, or "electronic" liquid crystal phases. Ultracold chemical reactions between polar molecules have been discussed, and might be controlled using electric fields. The sensitivity of current molecule-based searches for violations of fundamental symmetries might be increased to unprecedented levels. Since there is lack in the excited electronic states of alkaline earth compound, candidate for ultracold investigation, the potential energy curves have been obtained for the lowest electronic states in the representation below 53000 cm^{-1} along with the harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , and the electronic energy with respect to the ground state T_e . The comparison of these values to the theoretical and experimental results available in the literature shows a good agreement.

IEEE NANO 2011 Conference	اسم المؤتمر
15 - 18 / 8 / 2011	تاريخ المشاركة
Portland Marriott Downtown / Portland / Oregon / USA	مكان المؤتمر
Low - Lying Electronic States of the Nanodiatomic Compounds CdS	عنوان البحث
The potential energy curves have been investigated for lowest electronic states in the $^{2s+1}\Lambda^{(\pm)}$ representation of the molecule CdS via CASSCF, MRCI (single and double excitation with Davidson correction). The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e , and the permanent dipole moment μ have been calculated.	ملخص البحث

القسم: العلوم البيولوجية والبيئية

٢/١٩ إسم الباحث الرئيسي: د. محمد مصطفى
أسماء الباحثين المشاركين: ابتهاج السباعي

Mediterranean Conference on Innovative Materials & Applications	اسم المؤتمر
15 - 17 / 3 / 2011	تاريخ المشاركة
Beirut / Lebanon	مكان المؤتمر
Physicochemical Properties & Motifs of Selenoprotein N	عنوان البحث
Selenoprotein N (SelN) is a glycoprotein located in the endoplasmic reticulum membrane of <i>Homo sapiens</i> , <i>Mus musculus</i> , <i>Bos taurus</i> , <i>Gallus gallus</i> , <i>Danio rerio</i> and <i>Xenopus tropicalis</i> associated with redox activity. SelN may be involved in the regulation of calcium flux and may have a redox activity; however, its exact role is yet unknown. In this study, we used bioinformatics databases and programs to study SelN structure-function relationship. Bioinformatics programs showed that human SelN is a large protein (70 kDa) with isoelectric point of 5.35. Bioinformatics programs revealed the presence of a single EF-hand type 2 calcium binding domain in SelN that may undergo conformational changes upon binding to intracellular calcium ion. The secondary structure of SelN showed thioredoxin fold in SelN that is similar to that of SelH and SelW but with additional alpha helices insertion and they differ in their redox motif; therefore, SelN may be involved in thioredoxin reactions via its CUGS motif and thioredoxin fold. Sequencing of SelN amino acid sequence in rat showed the similarity between the predicted sequence and the sequenced one. SelN redox motif (CUGS) was specified in addition to its thioredoxin fold.	ملخص البحث

القسم: الفيزياء

٢/٢٠ إسم الباحث الرئيسي: أ. د. سيد عبودي

أسماء الباحثين المشاركين: M. Soueidan, Q. Al Asaad, L. Auvray, G. Ferro, M. Roumie & B. Nsouli

Mediterranean Conference on Innovative Materials & Applications (CIMA 2011)	اسم المؤتمر
15 - 17 / 3 / 2011	تاريخ المشاركة
Beirut / Lebanon	مكان المؤتمر
On the Characterization of Boron in BGaAs Nano - Films Using IBA Techniques	عنوان البحث
In this work, the capability of the proton Induced γ -ray Emission (PIGE) technique to monitor a rapid, nondestructive and quantification of Boron in ultra-thin films of $B_xGa_{1-x}As$ deposited on GaAs substrate using MOCVD is discussed. In order to improve the sensitivity for B detection, a systematic study was undertaken using proton induced beam at different energies (from 1.7 to 3 MeV) with different tilting angles of incidence (0, 60° and 80°). Best conditions were found to be at 1.7 MeV proton energy within ten minutes of acquisition time.	ملخص البحث

Mediterranean Conference on Innovative Materials & Applications (CIMA 2011)	اسم المؤتمر
15 - 17 / 3 / 2011	تاريخ المشاركة
Beirut / Lebanon	مكان المؤتمر
RBS Study of Multilayer Structure Material of Si / SiO ₂ Nano - Films	عنوان البحث
An absorber-emitter system was fabricated using a multi-layer structure of amorphous silicon and silicon oxide thin films. The layers were deposited using RF magnetron sputtering system. The thin films were alternated in a periodic structure to form a one-dimensional photonic crystal. Each period in the crystal consisted of one layer of 57 nm thick silicon and a 100 nm thick silicon oxide layer. Several samples were prepared consisted on different periods (N=1, 2, 3, 4, 5 and 10). Rutherford Backscattering Spectrometry technique (RBS) was used to verify the number of layers and their alternation, checking the thicknesses and determine the real stoichiometry in each layer of Si and SiO _x .	ملخص البحث

CIMA, Mediterranean Conference on the Innovative Materials & Applications	اسم المؤتمر
15 - 17 / 3 / 2011	تاريخ المشاركة
Beirut / Lebanon	مكان المؤتمر
Solvent Effect on the Solvolysis of Trans - Dichloro (3, 4 - Dimethyl Pyridine) ₄ Cobalt (III) Complex in Water - Ethylene Glycol & in Water - Acetonitrile Binary Aqueous Mixtures	عنوان البحث
The kinetics of solvolysis trans-dichloro [(3,4-dimethyl pyridine) ₄ cobalt(III)] complex have been investigated spectrophotometrically in aqueous-organic solvent media using ethylene glycol and acetonitrile as co-solvent added to water (0%-60%)V/V at different temperatures (40°C-55°C). The non linear plots of log the first order rate constant with reciprocal of the dielectric constant for all co-solvent mixtures was attributed to the differential solvation of the initial and transition states. The variation of the enthalpy and the entropy of activation with the mole fraction of the co-solvents shows extreema at the composition ranges where the change in solvent structure occurs. Analysis of the solvent effects confirmed a common I _d mechanism for the solvolysis cobalt(III) complex. The application of a free energy cycle to the process of the initial state going to the transition state suggests that the cationic cobalt(III) complex in the transition state is more stable than the cationic cobalt complex in the initial state in all co-solvent compositions.	ملخص البحث

ICCK, The 7th International Conference on Chemical Kinetics	اسم المؤتمر
10 - 14 / 7 / 2011	تاريخ المشاركة
MIT / Cambridge / MA / USA	مكان المؤتمر
Kinetic & Thermodynamic Studies of 2 - Chloro - 5 - Nitropyridine with Para - Anilines in Propan - 1 - ol & Propan - 2 - ol	عنوان البحث
The kinetic and thermodynamic studies of the reaction of 2-chloro-5-nitropyridine (para-like) with different concentrations (0.11-M) of selected para anilinum ions were studied in propan-1-ol and propan-2-ol at different temperatures in the range 45 - 60°C.	ملخص البحث

In both solvents the reaction was not a base-catalyzed one. A plot of ΔH^* versus ΔS^* gave good straight lines with isokinetic temperatures 258°C and 163°C for the reaction in propan-1-ol and propan-2-ol respectively. Good linear relationships were obtained from the plots of $\log k_2$ against σ values with relatively large negative ρ values indicating the formation of Meisenheimer σ -complex intermediates. Plots of $\log k_2$ against pK_a values gave good straight lines indicating that the reactions show an appreciable degree of bond formation in the transition state.

ICCK, The 7th International Conference on Chemical Kinetics

اسم المؤتمر

10 - 14 / 7 / 2011

تاريخ المشاركة

MIT / Cambridge / MA / USA

مكان المؤتمر

Kinetic & Thermodynamic Studies of the Solvolysis of Trans[Co(3,4-dimethylpyridine)₄Cl₂]ClO₄

عنوان البحث

Complex in Binary Aqueous Medium

The kinetics of solvolysis of trans-[Co(3,4-dimethylpyridine)₄Cl₂]ClO₄ has been measured over a wide range of solvent compositions (0 - 60% v/v) and temperatures (40 - 55°C) in water, water-ethanol and water-propan-1-ol. Plots of $\log(\text{rate constant})$ versus the reciprocal of the relative permittivity of the co-solvent are non-linear for both co-solvents. This non-linearity is derived from a large differential effect of solvent structure between the initial and transition states. However, extrema in the variation of enthalpy ΔH^\ddagger and entropy ΔS^\ddagger of activation correlate well with the extrema in physical properties of the mixtures which are related to changes in solvent structures. Linear plots of ΔH^\ddagger versus ΔS^\ddagger were obtained and the isokinetic temperature indicates that the reaction is entropy controlled. The Gibbs free energy cycle relating the Gibbs energy of activation in water and in the binary aqueous mixtures to Gibbs energies of transfer of individual ionic species between water and the mixtures was applied.

ملخص البحث

CIMA, Mediterranean Conference on the Innovative Materials & Applications

اسم المؤتمر

15 - 17 / 3 / 2011

تاريخ المشاركة

Beirut / Lebanon

مكان المؤتمر

Ftir Spectra of Some Pyrimidine Derivatives: Am1, Pm3 & Ab Initio Calculations

عنوان البحث

FTIR spectra of some pyrimidine derivatives have been measured experimentally and the observed FTIR vibrational frequencies have been assigned. These pyrimidine derivatives are: 2-amino pyrimidine (I), 2-amino-4-methylpyrimidine (II), 2-amino-4, 6-dimethylpyrimidine (III), 2-amino-4, 6-dimethoxypyrimidine (IV) and 2-amino-4, 6-dichloropyrimidine (V). The obtained results show that the computational methods AM1, PM3, and ab initio/6 - 31G reasonably predicted the spectral positions of the different vibrational modes in these pyrimidine derivatives.

ملخص البحث

CIMA, Mediterranean Conference on the Innovative Materials & Applications

اسم المؤتمر

15 - 17 / 3 / 2011

تاريخ المشاركة

Beirut / Lebanon

مكان المؤتمر

Kinetics of Ion - Pair Effect of Aquation of Bromopentaammine Cobalt (III) Complex in Different Dicarboxylate Media

عنوان البحث

The rate of aquation of bromopentaammine cobalt(III) ion in the presence of different types of dicarboxylate solutions containing tert-butanol (40% V/V) have been measured spectrophotometrically at different temperatures (30 - 60°C) in the light of the effects of ion-pairing on reaction rates and mechanism. The thermodynamic and extrathermodynamic parameters of activation have been calculated and discussed in terms of solvent effect on the ion-pair aquation reaction. The free energy of activation ΔG_{ip}^* is more or less linearly varied among the studied dicarboxylate ion-pairing ligands indicating the presence of compensation effect between ΔH_{ip}^* and ΔS_{ip}^* . Comparing the k_{ip} values with respect of different buffers at 40% of ter-butanol is introduced.

ملخص البحث

Mediterranean Conference on Innovative Materials & Applications

اسم المؤتمر

15 - 17 / 3 / 2011

تاريخ المشاركة

Crown Plaza Hotel / Beirut / Lebanon

مكان المؤتمر

On the Characterization of Ultra Thin Al Films Deposited onto SiC Substrate Using PIXE Technique

عنوان البحث

In this work the capability of the proton induced X-ray emission (PIXE) technique to monitor a rapid, non-destructive and accurate quantification of Al on or inside SiC is discussed. Optimization of PIXE acquisition parameters was performed using as reference, a thin Al film (2.5 nm) thermally evaporated onto silicon carbide substrate. In order to improve the sensitivity for Al detection and quantitative determination, a systematic study was undertaken using proton ion beam at different energies (from 0.2 to 3 MeV) with a different tilting angle (0°, 60°, and 80°). The limit of detection (LOD) was found to be lower than 0.02 nm. The optimum PIXE conditions (energy, angle) were applied for determining the Al doping concentration in thin (1 μ m) 4H-SiC homoepitaxial layer. The Al concentration as determined by PIXE was found to be 3.9×10^{20} at/cm³ in good agreement with SIMS measurements, and the LOD was estimated to be 6×10^{18} at/cm³.

ملخص البحث

EMUNI ReSouk 2011 Innovation & Employability - The Universities Challenge

اسم المؤتمر

21 / 3 / 2011

تاريخ المشاركة

BAU / Lebanon

مكان المؤتمر

Bioremediation of Groundwater from Nitrate in Bekaa Valley

عنوان البحث

Nitrate pollution of ground water is becoming a serious problem in Lebanon especially in agricultural regions like Bekaa valley. With this in regards, USEPA has regulated the maximum nitrate concentration in drinking water not greater than 10mg NO₃-N/L. In order to comply with this regulation, nitrate must be removed from ground water effectively. Different water and soil samples were collected from nitrate-polluted sites at Middle Bekaa. According to the standard methods of water examination, the following parameters were measured in the water samples: BOD, COD, total hardness, calcium hardness, magnesium, chloride, nitrate, nitrite, ammonium, and sulphate. Two nitrate reducing organisms were isolated from the collected samples. Phenotypic, biochemical and genotypic characterization of these organisms showed 92% identity to *Rahnella* species and 98% identity to *Bacillus cereus*. Screening of the nitrate reduction, nitrite and ammonium formation activities of bacteria, as well as the growth patterns of each, showed that the fastest nitrate reduction is achieved by using consortium technique. Results also showed that Mineral Salt Medium provides faster reduction of nitrate than Potassium Nitrate Media or Synthetic Nitrate Media by the latter, under static conditions rather than shaken conditions. Keyword: Nitrate Bioremediation, ground water, consortium and identification.

ملخص البحث

٢/٢٩

أسماء الباحثين المشاركين: Z. Olama & A. Al-Bahadly

EMUNI ReSouk 2011 Innovation & Employability - The Universities Challenge

اسم المؤتمر

21 / 3 / 2011

تاريخ المشاركة

BAU / Lebanon

مكان المؤتمر

Detoxification of Hexavalent Chromium (VI) by *Bacillus Laterosporus* & Its Application in Lebanese Waste Water

عنوان البحث

Nitrate pollution of ground water is becoming a serious problem in Lebanon especially in agricultural regions like Bekaa valley. With this in regards, USEPA has regulated the maximum nitrate concentration in drinking water not greater than 10mg NO₃-N/L. In order to comply with this regulation, nitrate must be removed from ground water effectively. Different water and soil samples were collected from nitrate-polluted sites at Middle Bekaa. According to the standard methods of water examination, the following parameters were measured in the water samples: BOD, COD, total hardness, calcium hardness, magnesium, chloride, nitrate, nitrite, ammonium, and sulphate. Two nitrate reducing organisms were isolated from the collected samples. Phenotypic, biochemical and genotypic characterization of these organisms showed 92% identity to *Rahnella* species and 98% identity to *Bacillus cereus*. Screening of the nitrate reduction, nitrite and ammonium formation activities of bacteria, as well as the growth patterns of each, showed that the fastest nitrate reduction is achieved by using consortium technique. Results also showed that Mineral Salt Medium provides faster reduction of nitrate than Potassium Nitrate Media or Synthetic Nitrate Media by the latter, under static conditions rather than shaken conditions. Keyword: Nitrate Bioremediation, ground water, consortium and identification.

ملخص البحث

EMUNI ReSouk 2011 Innovation & Employability - The Universities Challenge	اسم المؤتمر
21 / 3 / 2011	تاريخ المشاركة
BAU / Lebanon	مكان المؤتمر
Environmental Factors Affecting the Microbial Production of Glycerol Using Date Molasses	عنوان البحث
Batch shake culture fermentations of <i>Saccharomyces cerevisiae</i> Y-1347 grown in date molasses as a cheap carbon source for glycerol production was studied. The maximum dry weight 6.71 g/L and glycerol production 7.58 g/L were achieved at pH 5; inoculum level, 4%; culture volume, 100 ml; for 72 hours incubation at 30°C ±2. Statistically-based experimental designs were applied to optimize the medium constituents for the glycerol production. Eleven culture conditions were examined for their significance on glycerol production using Plackett-Burman factorial design. The addition of glycerol, the reducing sugar contents and NaCl were the most significant factors improving glycerol production process. Maximal glycerol output 18.28 g/L has been detected under the following conditions (g/L): Reducing sugar (in date molasses), 250; yeast extract, 15; malt extract, 5; peptone, 3; urea, 4; glycerol, 4; KH ₂ PO ₄ , 5; (NH ₄) ₂ SO ₄ , 1; NaCl, 4; which is more than 2.4 folds the production in basal medium using free cells. A verification experiment was carried out to examine model validation and revealed more than 95% validity. On using immobilized cells the glycerol output was increased to be 20.9 g/L. These results were successfully reproduced for fed-batch process in a fermentor.	ملخص البحث

ICEST 2010: "International Conference on Environmental Science & Technology"	اسم المؤتمر
3 / 2011	تاريخ المشاركة
Venice / Italy	مكان المؤتمر
De - Pollution & Recycling of Some Industrial Effluents	عنوان البحث
Some wastewaters namely: Whey effluent (WhE); orange effluent (OE); carrot effluent (CE) and chocolate effluent (ChE) were bioremediated using some allochthonous microorganisms (<i>Lactobacillus delbrueckii</i> subsp. <i>bulgaricus</i> , <i>Saccharomyces cerevisiae</i> Y-1347 and <i>Dekkera bruxellensis</i>). The highest biodegradable efficiency of COD, BOD and TKN of the effluents under investigation was noticed when using the allochthonous microorganisms together with the autochthonous one. <i>Saccharomyces cerevisiae</i> Y-1347 proved to be the best utilizer of whey (WhE) organic and nitrogenous compounds with the reduction of BOD, COD and TKN by 12.35, 20 and 68.42%, respectively. <i>Dekkera bruxellensis</i> proved to be the organism of choice on using orange effluent (OE) where BOD, COD and TKN were reduced by 18, 20 and 53.38%, respectively. <i>Lactobacillus delbrueckii</i> subsp. <i>bulgaricus</i> proved to be the best utilizer of the carrot effluent (CE) constituents by reducing BOD, COD and TKN by 24.27, 19.3 and 63.63%, respectively. <i>Dekkera bruxellensis</i> proved to be the best utilizer of the chocolate effluent (ChE) constituents by improving its quality and reducing BOD, COD and TKN by 18.36 and 15.86 and 73%, respectively. A successful trial was made to use the treated wastewater effluents in the irrigation of <i>Lens culinaris</i> and <i>Phaseolus vulgaris</i> seeds for germination.	ملخص البحث

EMUNI ReSouk 2011 Innovation & Employability - The Universities Challenge

اسم المؤتمر

21 / 3 / 2011

تاريخ المشاركة

BAU / Lebanon

مكان المؤتمر

Microbial Production of a Biodegradable Plastic

عنوان البحث

Plastics produced from petrochemical sources and known as polypropylene are now accumulating in our environment at rates of millions of tons per year creating severe problems. The present study aims to the production and isolation of PHB (polyhydroxybutyrate), a biodegradable plastic, from agro-industrial waste products (whey and date molasses) due to its high economic industrial importance, taking into consideration many points that lead to produce PHB on large scale. The methodology of this study includes screening study for the isolation of a promising microbial producer of PHB, and optimization experiments to evaluate the best environmental and physiological factors that lead to maximum production of PHB using a statistical design known as Plackette-Burman. Lactobacillus acidophilus has shown maximum production on date molasses supplemented with NB and glucose yielding 0.412 g/50ml of PHB after incubation for 4 days, at PH 5.6, 50 ml culture volume and 3 ml inoculum level where Bacillus subtilis produced 0.33 g/50ml after incubation for 6 days on whey supplemented with glucose, yeast extract, and peptone. Maximum PHB output of 43.76 g/l produced by Lactobacillus acidophilus was revealed by the statistical design.

ملخص البحث

٢/٣٣

أسماء الباحثين المشاركين: L. Zeenni & H. Holail

17th International Scientific Conference - Beirut - LASS

اسم المؤتمر

21 / 3 / 2011

تاريخ المشاركة

USEK

مكان المؤتمر

Antibacterial Effect of Some Lebanese Plant Oils Against Some Multi - Drug Resistant Bacteria

عنوان البحث

In the present investigation plant oil exhibited a strong antibacterial effect that allow them to be succesful treatment for microbial diseases. Such as pine,menth and sage oils as a treatment for E.coli. While menth oil as a treatment for Pseudomonas aeruginosa.

ملخص البحث

٢/٣٤

أسماء الباحثين المشاركين: L. Zeenni & H. Holail

Research Trends in Food Safety & Security

اسم المؤتمر

3 - 5 / 5 / 2011

تاريخ المشاركة

Beirut & Byblos campuses / LAU

مكان المؤتمر

Environmental Conditions Affecting the Single Cell Protein Production from Yeast Using Whey

عنوان البحث

SCP (single cell protein) has the potential to be developed into a very large source of supplemental protein that could be used in livestock feeding. Therefore, the present investigation was aimed to produce a SCP from a yeast using whey as a waste material. Screening experiments revealed that yeast strains under test were able to grow in submerged fermentation with maximum SCP yield. Maximum SCP % output was detected after 72 hours incubation. The quantitative estimation of cellular amino acid showed to be rich in leucine and lysine, and relatively rich in threonine, valine, isoleucine, glycine and phenyl alanine. However low amount of histidine, tyrosine, cystine and tryptophane were detected.

ملخص البحث

The chemical analysis of the crude protein was revealed to contain: Cellular protein, 80%; carbohydrate, 10% and lipids, 4%. The effect of dietary protein on growth rate of Spague Dawley rats showed a significant increase in all body weight.

ملخص البحث

القسم: الكيمياء

٢/٣٥ إسم الباحث الرئيسي: حوراء زهرالدين

أسماء الباحثين المشاركين: أ. د. حنفي هليل – أ. د. حسان حمود

ReSouk 2011

اسم المؤتمر

21 / 3 / 2011

تاريخ المشاركة

BAU / Lebanon

مكان المؤتمر

Biosorption of Methylene Blue by Green Marine Algae

عنوان البحث

Since the reasons of rising pollution, urbanization and industrialization around the world's water sources are polluted. The main force of water pollution mostly comes from waste water which contains industrial and environmental contaminations. Dye manufacturing can cause serious problems in waste water. Batch biosorption were carried out for the removal of methylene blue, a basic dye, from aqueous solution using dried *Enteromorpha* sp., a green marine algae which is widely distributed in the Mediterranean Sea, and which is considered an alternative low cost biosorbent. The operating variables studied were initial dye concentration, contact time, and temperature. The biosorption data have been analysed using Langmuir, Freundlich and Tempkin isotherms. Pseudo-second-order model was well in line with the adsorption data. Thermodynamic parameters such as enthalpy, entropy, and Gibb's free energy changes were also calculated and it was found that the biosorption of dyes by *Enteromorpha* sp. was a spontaneous process. The FT-IR spectrum confirmed the presence of COOH, C=O, and NH₂ groups in the biomass structure. The maximum adsorption capacity of methylene blue was estimated as 715 mg/g at 35°C, and the maximum percentage removed was 97%.

ملخص البحث

القسم: الكيمياء

٢/٣٦ إسم الباحث الرئيسي: محمد حنبلي

أسماء الباحثين المشاركين: أ. د. حنفي هليل – أ. د. حسان حمود

ReSouk 2011

اسم المؤتمر

21 / 3 / 2011

تاريخ المشاركة

BAU / Lebanon

مكان المؤتمر

De - Pollution of Organic Dyes by Red Marine Algae

عنوان البحث

Enhanced industrial activity during recent decades has led to discharge of unprecedented volumes of wastewater which contain high concentration of dyes. In the environment, dyes pose a serious threat to living organisms due to their toxicity. Biosorption has been recently applied in industry for wastewater treatment because of significant economic benefits compared to other expensive techniques. In this study, biosorption experiments were carried out for the removal of the cationic dye, Crystal violet, from its aqueous solution by biomass as marine algae. The red alga *Jania* spp which is a low cost biosorbent was modified using different chemicals for industrial application. Several equilibrium models were tested after both linear and nonlinear regression analysis in order to fit the experimental data to understand the possible interactions involved in the sorption phenomenon between the algae surface and the proposed sorbents. The best-adjusted model to the experimental equilibrium data was Langmuir model. Fixed bed column biosorption experiments were conducted to evaluate the biomass for its effective use in industrial applications under flow conditions. Breakthrough curves were established and different models were used to describe the behavior of these packed-sorption process.

ملخص البحث

ReSouk 2011

21 / 3 / 2011

BAU / Lebanon

Activated Carbon for Depollution of Heavy Metals

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Environmental pollution caused by industrial effluents is of major concern due to their toxicity and threat for human life and environment. The discharge of water containing heavy metals into the Mediterranean sea represent an important environmental problem due to its carcinogenic effects and accumulation throughout the food chain and human body. Adsorption was found to be a very effective separation technique and activated carbon has undoubtedly been the most popular and widely used adsorbent in wastewater treatment. Thus, there is a need to produce activated carbon from cheap and readily available materials. In this work, activated carbon was prepared from Jania Rubens, an abundant low cost and renewable red algae, using wet digestion method with concentrated H_2SO_4 . The activated carbon is also functionalized through acidic and basic treatment for the selective removal of particular pollutants. The removal efficiency of Cadmium from wastewater is undertaken. The adsorption isotherms, Freundlich and Langmuir models, were selected to study the equilibrium nature of adsorption. The thermodynamics and kinetics of the adsorption process are also discussed. Results of this study will be useful for future scale-up using this material in industry as a low-cost adsorbent for the removal of heavy metals from water.

ReSouk 2011

21 / 3 / 2011

BAU / Lebanon

Multiple Sorption - Desorption Cycles of Methylene Blue in a Fixed - Bed Column by Modified Brown Marine Algae

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

The objective of this work is to study the biosorption/desorption of Methylene Blue using the modified brown marine algae Carolina as Biomass. Modification was done by pretreatment with NaOH (0.1N), $CaCl_2$ (0.2M) or Formaldehyde (cross linking). Three sorption-desorption cycles were operated for the modified algae. The breakthrough curves show the same behavior for the three successive cycles sorption/desorption. The percentage efficiency is 100% for the first cycle then decrease for the second and the third. Ninety percent of elution happened in the first aliquot. Isotherm study Langmuir; Freundlich and Temkin were investigated to find the maximum capacity (q_{max}). The maximum capacity was found equal to 64, 58, and 43 mg/g for algae modified with NaOH, $CaCl_2$ and formaldehyde respectively. The modified algae material are superior to non modified algae in column packing with respect to physical properties which improve the flow of water thru column. In addition these modified materials proved to be efficient in removing dye pollutant from marine environment.

Graduate Research in the Biomedical Sciences

30 - 31 / 5 / 2011

American University of Science & Technology / Beirut / Lebanon

Antimicrobial Resistance & Biocides Susceptibility of Persistent Bacteria in a Lebanese

Tertiary Care Hospital

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

The environment in a Lebanese hospital that offers tertiary-level care was examined for bacterial contamination. Eight open-air and 62 surface samples were obtained and the colony-forming units (CFU) from each site were enumerated. 104 different isolates were obtained and tested for resistance to a wide range of antibiotics using the Kirby-Bauer disk diffusion method. Minimum bactericidal concentrations of isolates to the 7 different biocides used within this facility were also determined using both quantitative and qualitative methods. Gram positive bacteria (82.7%) were encountered more often than Gram negative bacteria (17.3%) and the genus *Staphylococcus* was the most prevalent among isolates (59.6%). Gram positive isolates showed highest resistance to penicillin (60.6%), clindamycin (54.5%) and ceftazidime (39.4%). Lowest rate of resistance was seen with vancomycin (0%), nitrofurantoin (3%), tetracycline (12.1%) and ciprofloxacin (12.1%). The prevalence of MRSA and MRCNS among all environmental samples was 3.85% and 11.53% respectively. All Gram negative isolates were multiresistant. The most effective antibiotics and their resistance recorded in Enterobacteriaceae were chloramphenicol (0%), nitrofurantoin (0%), cefoxitin (22.2%) and tobramycin (22.2%). *Pseudomonas* spp were most susceptible to piperacillin (11.1%), ceftazidime (33.3%) and aminoglycosides (44.4%). With respect to biocides, highest resistance was seen with QAC (13.5%) and lowest rates with biguanide/QAC complex (<1%) and glutaraldehyde (3.8%). MDR bacteria to antimicrobial agents is increasing in the hospital environment showing the need for prudent use of antibiotics and correct infection control procedures.

١. الأبحاث المنشورة

القسم: الفيزياء

١/١ إسم عضو هيئة التدريس: أ. د. محمود إبراهيم عباس

Nuclear Instruments & Methods in Physics Research A

اسم المجلة أو الدورية

615 / PP. 48 - 52 / 2010

تاريخ النشر

Analytical Approach to Calculate the Efficiency of 4π NaI(Tl) Gamma - Ray Detectors for Extended Sources

عنوان البحث

The 4π NaI(Tl) detectors are usually utilized for low-level radioactivity measurements of environmental samples in gamma-ray spectroscopy due to the near 4π solid angle and high full-energy peak and total efficiencies. An analytical theoretical approach is presented here and used to calibrate a 4π NaI(Tl) ($2ax2bx2c$) detector, with a central rectangle hole ($2lx2mx2c$) was left empty for sample access, for isotropic radiating (point, plane and volumetric) sources. The approach depends on the accurate calculation of two important factors; the path length d , the photon traverses within the active volume of a gamma detector, and the geometrical solid angle, subtended by the source to the detector at the point of entrance. The comparisons with the experimental and Monte Carlo method works reported in the literature indicate that the present approach is useful in the efficiency calibration of such complicated gamma - ray spectrometer.

ملخص البحث

١/٢

Nuclear Instruments & Methods in Physics Research A

اسم المجلة أو الدورية

612 / PP. 413 - 418 / 2010

تاريخ النشر

A New Analytical Method to Calibrate Cylindrical Phoswich & LaBr₃(Ce) Scintillation Detectors

عنوان البحث

A new analytical method of efficiency calibration is proposed for cylindrical phoswich and lanthanum bromide (LaBr₃:Ce) scintillation detectors. This method depends on the accurate analytical calculation of two important factors; the path length d , the photon traverses within the active volume of a gamma detector, and the geometrical solid angle Ω , subtended by the source to the detector at the point of entrance. In addition, the attenuation of photons by the detector housing materials is also treated by calculating the photon path length through these materials. The comparisons with the experimental and Monte Carlo method data reported in the literature indicate that the present method is useful in the efficiency calibration of the cylindrical phoswich and lanthanum bromide (LaBr₃:Ce) scintillation detectors.

ملخص البحث

Nuclear Instruments & Methods in Physics Research A

اسم المجلة أو الدورية

622 / PP. 171 - 175 / 2010

تاريخ النشر

Analytical Formulae for Borehole Scintillation Detectors Efficiency Calibration

عنوان البحث

The borehole scintillation detectors (with central borehole) are useful for the identification and quantification of unknown gamma-ray emitting radionuclides in geological and environmental samples due to the near 4π solid angle that can be obtained with them. In addition, the 4π gamma ray-counting is a well established method for direct activity measurements, and is especially suited for radionuclides with complex gamma-ray spectra. A straightforward theoretical approach was carried out to calculate the efficiencies (total, Σ_T and geometrical Σ_G) of borehole scintillation detectors. The approach depends on the accurate calculation of two important factors; the path length, d , the photon traverses within the active volume of a gamma detector, and the geometrical solid angle Ω , subtended by the source to the detector at the point of entrance. These two factors are theoretically derived through straightforward analytical formulae. Furthermore, the attenuation of photons by the source container and the detector housing materials is also treated by calculating the photon path length through these materials. The comparisons with the experimental and Monte Carlo method works reported in the literature indicate that the present approach is useful in the efficiency calibration of such complicated gamma - ray spectrometer.

ملخص البحث

أسماء الباحثين المشاركين: سلام نورالدين

Radiation Measurements

اسم المجلة أو الدورية

46 / PP. 440 - 445 / 2011

تاريخ النشر

Analytical Expression to Calculate Total & Full - Energy Peak Efficiencies for Cylindrical Phoswich & Lanthanum Bromide Scintillation Detectors

عنوان البحث

An analytical expression for the total and full-energy peak efficiencies for cylindrical phoswich and lanthanum bromide (LaBr₃:Ce) scintillation detectors is derived. This approach depends on the accurate analytical calculation of two important factors; the path length d , the photon traverses within the active volume of a gamma detector, and the geometrical solid angle Ω , subtended by the source to the detector at the point of entrance. In addition, the attenuation of photons by the detector housing materials is also treated by calculating the photon path length through these materials. The comparisons with the experimental and Monte Carlo method data reported in the literature indicate that the present method is useful in the efficiency calibration of the cylindrical phoswich and lanthanum bromide scintillation detectors.

ملخص البحث

Journal of Theoretical & Computational Chemistry

اسم المجلة أو الدورية

Vol. 9 / No. 4 / 1 - 9 / 2010

تاريخ النشر

Theoretical Calculation of the Low - Lying Electronic States of the Molecule YS

عنوان البحث

The potential energy curves have been investigated for the 25 lowest electronic states in the $^{2s+1}\Lambda^{(\pm)}$ representation of the molecule YS via complete active space self-consistent field. Multireference configuration interaction calculations (single-and double excitations with Davidson corrections) were performed by using Gaussian basis sets for the two considered atoms. The harmonic frequency ω_e , the internuclear distance r_e , and the electronic energy with respect to the ground state T_e have been calculated for 25 electronic states where 21 states have been studied for the first time. The comparison of these values to the theoretical and experimental results available in the literature shows a very good agreement.

ملخص البحث

١/٦

أسماء الباحثين المشاركين: A. Hamdan

International Journal of Quantum Chemistry

اسم المجلة أو الدورية

Vol. 111 / Issue 10 / 2011A

تاريخ النشر

Theoretical Study with Vibration - Rotation & Dipole Moment Calculations of Quartet States of the CrCl Molecule

عنوان البحث

The potential energy curves have been investigated for the 10 lowest quartet electronic states in the $^{2s+1}\Lambda^{(\pm)}$ representation below 30000 cm^{-1} of the molecule CrCl via CASSCF and MRCI (singly and doubly excitation with Davidson correction) calculations. Seven electronic states have been studied theoretically for the first time. The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e , and the permanent dipole moment μ have been calculated. By using the canonical functions approach, the eigenvalues E_v , the rotational constant B_v and the abscissas of the turning points R_{\min} and R_{\max} have been calculated for the considered electronic states up to the vibrational level $v=19$. The comparison of these values to the theoretical results available in the literature shows a good agreement.

ملخص البحث

أسماء الباحثين المشاركين: N.M. AbdelMonem, M. El-Kersh, H. Omran & K. Kandeel

Journal of Physiology & Biochemistry

اسم المجلة أو الدورية

Vol. 66 / Issue 4 / 291 - 296 / 2010

تاريخ النشر

Succinate Cytochrome C Reductase in Schistosomiasis: In Vitro Inhibition by Some Schistosomicidal Drugs

عنوان البحث

Enzymes in mitochondria play an important role in biological oxidation and energy production. To understand the effect of schistosomiasis on these important processes, succinate cytochrome c reductase (SCR) from control and Schistosoma-infected mice was subjected for investigation. In this article, we report that SCR from Schistosoma-infected mouse showed a significant decrease in its V_{\max} and K_m compared to control using both cytochrome c and 2, 6-dichlorophenolindophenol as substrates.

ملخص البحث

Furthermore, the kinetic studies of the purified SCR in the absence and presence of the schistosomicidal drugs praziquantel and Commiphora extract reveal that both drugs have an inhibitory action on the enzyme from the control and Schistosoma-infected mice and praziquantel changes the type of inhibition of SCR towards cytochrome C from mixed type in control to a competitive one in the case of the infection.

أسماء الباحثين المشاركين: M. Balbaa, N. Abdel-Hady, N. Taha, N. Rezki, E. S. H. El-Ashry

European Journal of Medicinal Chemistry

اسم المجلة أو الدورية

Vol. 46 / Issue 6 / 2596 - 2601 / 2011

تاريخ النشر

Inhibition of α -Glucosidase & α -Amylase by Diaryl Derivatives of Imidazole - Thione & 1, 2, 4-Triazole-Thiol

عنوان البحث

The in vivo and in vitro effects of 4, 5-diphenylimidazole-2-thione (1), 4,5-Diphenyl-1, 2, 4-triazole-3-thiol (2) and 5-(2-Hydroxyphenyl)-4-phenyl-1, 2, 4-triazole-3-thiol (3) on α -glucosidase and α -amylase were investigated. The in vivo inhibition has been found to be dose-dependent and to occur at a value less than LD_{50} . The in vitro treatment of the enzymes by 4, 5-diphenylimidazole-2-thione exhibited a reversible inhibition of the non-competitive type with K_i value of 3.5 and 6.5×10^{-5} M magnitude for α -glucosidase and α -amylase, respectively. On the other hand, 5-(o-hydroxyphenyl)-4-phenyl-1, 2, 4-triazole-3-thione did not display an inhibitory effect towards α -amylase but showed a potent inhibition of the competitive type for hepatic α -glucosidase with 10^{-5} M magnitude of K_i value.

ملخص البحث

القسم: العلوم البيولوجية والبيئية

١/٩ اسم عضو هيئة التدريس: د. محمد مصطفى

S. V. Novoselov, H-Y. Kim, D. Hua, B.C. Lee, C.M. Astle, D. Haarrison, B. Friguet, أسماء الباحثين المشاركين:

M.E. Moustafa, B.A. Carlson, D.L. Hatfield & V.N. Gladyshev

Antioxidants & Redox Signaling

اسم المجلة أو الدورية

12 (7) : 829 - 838 / 2010

تاريخ النشر

Regulation of Selenoproteins & Methionine Sulfoxide Reductases A & B1 by Age, Calorie Restriction & Dietary Selenium in Mice

عنوان البحث

Methionine residues are susceptible to oxidation, but this damage may be reversed by methionine sulfoxide reductases MsrA and MsrB. Mammals contain one MsrA and three MsrBs, including a selenoprotein MsrB1. Here, we show that MsrB1 is the major methionine sulfoxide reductase in liver of mice and it is among the proteins that are most easily regulated by dietary selenium. MsrB1, but not MsrA activities, were reduced with age, and the selenium regulation of MsrB1 was preserved in the aging liver, suggesting that MsrB1 could account for the impaired methionine sulfoxide reduction in aging animals. We also examined regulation of Msr and selenoprotein expression by a combination of dietary selenium and calorie restriction and found that, under calorie restriction conditions, selenium regulation was preserved. In addition, mice overexpressing a mutant form of selenocysteine tRNA reduced MsrB1 activity to the level observed in selenium deficiency, whereas MsrA activity was elevated in these animals. Finally, we show that selenium regulation in inbred mouse strains is preserved in an outbred aging model. Taken together, these findings better define dietary regulation of methionine sulfoxide reduction and selenoprotein expression in mice with regard to age, calorie restriction, dietary Se, and a combination of these factors.

ملخص البحث

Journal of Biochemistry & Biotechnology

اسم المجلة أو الدورية

1 (2) : 145 - 152 / 2010

تاريخ النشر

Structure - Function Relationship of Selenoprotein V Using Bioinformatics

عنوان البحث

Selenoprotein V (SelV) is a mammalian selenoprotein encoded on chromosome 19 in human. It has been shown that SelV occurs in the testes. Its function is yet unknown. We used bioinformatics databases and programs to study the structure-function relationship of SelV. Bioinformatics programs showed that SelV is a soluble protein composed of three domains: A proline rich N-terminal domain that may contain a mitochondrial targeting presequence, hydrophobic domain in which selenocysteine (U) resides, and a C-terminal domain. The N-terminal domain includes a conserved Thr-Pro motif in mammals, which may act as a potential phosphorylation site for proline directed kinases. The hydrophobic domain of SelV contains a CGLU motif which may be involved in oxidation-reduction reactions. The C-terminal domain has a redox family motif tGe(a)FEV. Sequence alignment and secondary structure comparison of SelV and SelW revealed that SelV may contain 3 binding sites for 14 - 3 - 3 proteins. A predicted Sec redefinition element (SRE) structure in SelV mRNA is found downstream the UGA codon. Our results indicate that SelV may restrain SRE; it may be localized in the mitochondria, it may be involved in redox reactions via its active redox motif CGLU, and it may be involved in binding with 14 - 3 - 3 proteins.

ملخص البحث

القسم: الفيزياء

١/١١ إسم عضو هيئة التدريس: أ. د. سيد عبودي

أسماء الباحثين المشاركين: K. Alfaramawi, A. Sweyllam, S. Abboudy, N. Imam & H. Motaweh

International J. of Modern Physics B

اسم المجلة أو الدورية

24 / 4717 - 4725 / 2010

تاريخ النشر

Interface States - Induced-Changes in the Energy Band Diagram & Capacitance - Voltage Characteristics of Isotope ZnTe / CdTe Heterojunctions

عنوان البحث

Epitaxial layers of ZnTe have been grown on a (111) oriented CdTe single crystal substrate by thermal evaporation technique at 180 0C and a pressure of 10^{-6} Torr.. C-V measurements are carried out at frequencies of 10 kHz and 100 kHz. The calculated charge carrier concentration in the lightly doped over-grown layer, ZnTe, has been found to be $p=1.7 \times 10^{16} \text{cm}^{-3}$. It was found that the energy band diagram constructed according to the electron affinity model is not the adequate one to explain the capacitance-voltage behavior. Therefore, one should take into account the effect of interface states on the energy band diagram. The interface states were identified as hole traps for the ZnTe/CdTe heterojunction. Accordingly, a band bending downward both materials, and a depletion zone in both of them are expected.

ملخص البحث

أسماء الباحثين المشاركين: A. Sweyllam, K. Alfaramawi, S. Abboudy, N. Imam & H. Motaweh

Thin Solid Films

اسم المجلة أو الدورية

519 / 681 - 685 / 2010

تاريخ النشر

Growth & Current - Voltage Characterization of ZnTe / CdTe Heterojunctions

عنوان البحث

ZnTe layer have been grown on a (111) oriented CdTe single crystal substrate by thermal evaporation technique at 180°C and a base pressure of 10^{-6} Torr. The as-grown samples were investigated by x-ray diffraction. The pattern indicated a highly oriented crystallographic growth of ZnTe (111) layer on CdTe (111) substrate.

ملخص البحث

The current-voltage characteristics in both forward and reverse biasing were carried out in the temperature range from 300 K down to 200 K. The dark forward current curves were definitely of the diode type. This behavior can be understood as the barrier at the interface limits forward and reverse carrier flow across the junction, where the built-in potential could be developed. Series resistance due to the neutral region was estimated at approximately 320 ohm and the activation energy of the carriers was calculated and found to be 0.11±0.03 V. The reverse current shows negative resistance behavior at low voltage range.

ملخص البحث

القسم: الكيمياء

١/١٣ إسم عضو هيئة التدريس: أ. د. حسان حمود

أسماء الباحثين المشاركين: F.A. El Yazbi, M.E. Mahrous, Gh.M. Sonji & N.M. Sonji

Current Analytical Chemistry

6 (3) / 228 - 236 / 2010

Kinetic, Spectrophotometric Determination of Betaxolol, Clopidogrel & Imidapril in Pharmaceutical Preparations

اسم المجلة أو الدورية

تاريخ النشر

عنوان البحث

A simple, accurate and sensitive kinetic method has been developed for the determination of three cardiovascular drugs: Betaxolol, Clopidogrel, and Imidapril in pharmaceutical formulations. The method is based on the alkaline oxidation of the selected drugs with potassium manganate (VII) at room temperature (25°C) to produce a bluish-green colored product. The reaction is followed spectrophotometrically by measuring the rate of change of absorbance at 610 nm as a function of time. The fixed-time (ΔA) method is adopted for constructing the calibration curves, which were found to be linear over the concentration ranges of 0.40 - 2.0 $\mu\text{g ml}^{-1}$ Betaxolol, 1.0 - 10.0 $\mu\text{g ml}^{-1}$ Clopidogrel, and 6.0 - 16.0 $\mu\text{g ml}^{-1}$ Imidapril. The implemented fixed times were 15 min for Betaxolol and Clopidogrel and 10 min for Imidapril. The proposed method has been successfully applied to pharmaceutical formulations of each drug. The percentage relative error and the coefficient of variation were less than 0.6 and 1.2 respectively. The lower limits of quantitation (LOQ) were 9.75×10^{-7} M Betaxolol, 3.62×10^{-6} M Clopidogrel, & 4.22×10^{-6} M Imidapril. The determination of the investigated drugs by the fixed-concentration and the rate-constant methods is feasible with the regression equations obtained, but the fixed-time method proves to be more applicable.

ملخص البحث

١/١٤

أسماء الباحثين المشاركين: B. Shaabani, B. Mirtamizdoust, D. Viterbo, G. Croce

ZAAC Journal of Inorganic & General Chemistry

636 (8) / 1596 - 1600 / 2010

A Novel Metal - Ligand Iodo Bridged Lead (II) Compound: Synthesis, Crystal Structure, Thermal Properties & DFT Calculations of $[\text{Pb}(\text{dmp})_2]_n$

اسم المجلة أو الدورية

تاريخ النشر

عنوان البحث

A novel 1D Pb^{II} coordination polymer $[\text{Pb}(\text{dmp})_2]_n$ (1) (dmp is the abbreviation of 2, 9-dimethyl-1, 10-phenanthroline) containing a $\text{Pb}_2-(\mu\text{-I})_2$ unit has been prepared and characterized by elemental analysis, IR, ^1H NMR and ^{13}C NMR spectroscopy and studied by thermal analysis as well as X-ray crystallography. The single-crystal X-ray data show that the coordination number of Pb^{II} ions is six, i.e. PbN_2I_4 , with stereochemically active electron lone pairs, and the coordination sphere is asymmetrical. They also show that the chains interact with each other through π - π stacking interactions which create a 3D framework. The structure of the title complex has been optimized by density functional theory calculations. Structural parameters and IR spectra of the title complex are consistent with the crystal structure.

ملخص البحث

J. Korean Chem. Soc. JKCSEZ	اسم المجلة أو الدورية
54 (4) / 419 - 428 / 2010	تاريخ النشر
Microwave Irradiation & Diisopropylcarbodiimide (DIC) / 7 - Aza - 1 - hydroxybenzotriazole (HOAt): A Potent Combination for Synthesis of Various Hydrazone from N - Protected Amino Acid & Hydrazine	عنوان البحث
Here we describe a fast and rapid technique for preparation of amino acid hydrazone as well as peptide hydrazone derivatives using diisopropylcarbodiimide (DIC)/1-hydroxybenzotriazoles (HOXt) (X=A or B) under microwave irradiation employing a multimode reactor (Synthos 3000 Aton Paar, GmbH, 1400 W maximum magnetron). A comparison between conventional and microwave irradiation was described. The microwave methodology is rapid, convenient, proceeds under mild conditions. Diisopropylcarbodiimide (DIC)/7-aza-1-hydroxybenzotriazole (HOAt) always gave much better yield (95 - 98%) and purity than diisopropylcarbodiimide (DIC)/1-hydroxybenzotriazole (HOBt).	ملخص البحث

International Journal of Applied Mathematics & Physics	اسم المجلة أو الدورية
Vol. 2 / Issue 1 / 57 - 62 / 2010	تاريخ النشر
Analytical & Numerical Solution for Chemical Reaction & Radiation in an Optically Thin Gray Gas Flowing Past a Vertical Infinite Plate in the Presence of Induced Magnetic Field	عنوان البحث
This paper is focused on the analytical and numerical studies for the effects of chemical reaction and radiation on two dimensional flow of an optically thin conducting gray gas past a stationary infinite vertical porous plate in the presence of induced magnetic field. It is assumed that the plate temperature and the suction at the plate are constants. The induced magnetic field acts perpendicular to the porous plate. The dimensionless equations governing this investigation are solved analytically. Numerical results for the velocity, temperature and concentration as well as for the skin friction coefficient, wall heat transfer and mass transfer rate are obtained and reported graphically for various conditions to show interesting aspects of the solution.	ملخص البحث

Acta Math. Hungar	اسم المجلة أو الدورية
Vol. 129 (4) / 297 - 302 / 2010	تاريخ النشر
On - Minimal - Ideals & Biideals in Involution Rings	عنوان البحث
For semiprime involution rings, we determine some minimal-ideals using idempotent elements. Nevertheless, minimal-biideals are characterized by idempotent elements. Moreover, the involutive version of a theorem due to Steinfeld, which investigates a semiprime involution ring A if $A = SocA$, is given. Finally, semiprime involution rings having no proper nonzero-biideals are characterized.	ملخص البحث

East - West J. of Mathematics

اسم المجلة أو الدورية

Zero Divisors & Prime Ideals

عنوان البحث

Throughout this note we introduce the concept of-zero divisors in rings with involution and its correlation with the concept of zero divisors in rings without involution. Moreover, some related definitions; such as completely prime ideals and rings and cancellation laws are introduced. Nevertheless, we characterize prime and completely prime ideals using zero divisors.

ملخص البحث

Tamkang Journal of Mathematics / Taiwan

اسم المجلة أو الدورية

Vol. 41 / No. 3 / 283 - 292 / 2010

تاريخ النشر

On the Irreducibility of Linear Representations of the Pure Braid Group

عنوان البحث

We find a sufficient condition for the tensor product of specializations of the reduced Gassner representation of the pure braid group to be irreducible. We prove that $G_n(x_1, \dots, x_n) \times G_n(y_1, \dots, y_n) : P_n \rightarrow GL(C^{n-1} \times C^{n-1})$ is irreducible if $x_i \neq y_i \pm 1$ and $x_j \neq y_j \pm 1$ for some i and j .

ملخص البحث

International journal of Applied Mathematics / Bulgaria

اسم المجلة أو الدورية

Vol. 23 / No. 4 / 681 / 691 / 2010

تاريخ النشر

On a Class of Irreducible Representations of the Braid Group B

عنوان البحث

We consider Wada's representation of the braid group, namely $\phi_n : B_n \rightarrow GL(n, Z[t^{\pm 1}])$, where t is an indeterminate. Here, the automorphism corresponding to σ_i , the generator of B_n , takes $x_i \rightarrow x_i^2 x_{i+1}, x_{i+1} \rightarrow x_{i+1}^{-1} x_i^{-1} x_{i+1}$ and fixes all other generators of the free group $F_n = \langle x_1, \dots, x_n \rangle$. By specializing the indeterminate t to a non zero complex number, we give a necessary and sufficient condition that guarantees the irreducibility of Wada's representation. Next, we show that the images of the generators of the braid group under that representation are unitary relative to a hermitian matrix. This is similar to the well known result by C. C. Squier that asserts that the Burau representation of the braid group is unitary.

ملخص البحث

Materials Science Forum

اسم المجلة أو الدورية

Vol. 645 - 648 / PP. 1191 - 1194 / 2010

تاريخ النشر

Growth of Nanocrystalline Translucent h - BN Films Deposited by CVD at High Temperature on SiC Substrates

عنوان البحث

h-BN layers were deposited on α -SiC substrates by CVD at high temperature (1500-1900°C) using B_2H_6 and NH_3 diluted in Ar. Growth rates were in the 6 - 10 $\mu m/h$ range. In all the conditions studied, the BN as deposited layers were found to be translucent to light, some having a light whitish aspect and other a more yellowish one. It was also observed that the deposit was not always adhesive.

ملخص البحث

μ -Raman and TEM characterization showed that the layers were nano-crystalline with crystallite size < 10 nm. The growth rate was found temperature and N/B ratio dependent due to an N limited growth regime which is more pronounced above 1700°C.

ملخص البحث

١/٢٢

أسماء الباحثين المشاركين: M. Soueidan, B. Nsouli & G. Ferro

Materials Science Forum

اسم المجلة أو الدورية

Vol. 679 - 680 / 189 - 192 / 2011

تاريخ النشر

On the Quantification of Al Incorporated in SiC Material Using Particle Induced X-Ray Emission Technique

عنوان البحث

In this work the capability of the proton induced X-ray emission (PIXE) technique to monitor a rapid, non-destructive and accurate quantification of Al on and in Si-based matrix is discussed. Optimization of PIXE acquisition parameters was performed using as reference a thin Al film (2.5 nm) thermally evaporated onto silicon substrate. In order to improve the sensitivity for Al detection and quantitative determination, a systematic study was undertaken using proton ion beam at different energies (from 0.3 to 3 MeV) with a different tilting angle (0°, 60°, and 80°). The limit of detection (LOD) was found to be lower than 0.2 nm. The optimum PIXE conditions (energy, angle) were applied for determining the Al doping concentration in thin (1 μ m) 4H-SiC homoepitaxial layer. The Al concentration as determined by PIXE was found to be 3.9×10^{20} at/cm³ in good agreement with SIMS measurements, and the LOD was estimated to be 6×10^{18} at/cm³.

ملخص البحث

١/٢٣

أسماء الباحثين المشاركين: G. El-Subruti & M. Jabber

Progress in Reaction Kinetics & Mechanism

اسم المجلة أو الدورية

Vol. 36 / 73 - 82 / 2011

تاريخ النشر

Kinetic Studies of Solute - Solvent Interactions in the Solvolysis of Trans - [C₆(4-tert-butylpyridine)₄Cl₂]ClO₄ in Organic - Aqueous Mixtures

عنوان البحث

The kinetics of solvolysis of trans-[C₆(L)₄Cl₂]ClO₄ where (L=4-tert-butylpyridine) were followed spectrophotometrically in water - dioxane and water - dimethylsulfoxide media (0 - 60% v/v) over the temperature range (40 - 55°C). Non-linear plots were found for the logarithm of the rate constant of the first-order reaction versus the reciprocal of the relative permittivity, ϵ_r , of the mixed solvent. This behaviour can be attributed to the differential solvation of the initial and transition states of the complex. The enthalpies and entropies of activation showed compensating extrema with the mole fraction of solvent, leading to a small variation in the free energy of activation. By applying a free-energy cycle, it was found that the difference between the values of the free energy of transfer of the cations in the transition and initial states were negative, indicating that the cation in the transition state is more solvated than that in the initial state.

ملخص البحث

International Journal of Chemical Kinetics

اسم المجلة أو الدورية

Vol. 43 / Issue 5 / 230 / 2011

تاريخ النشر

Kinetic & Multiparameters Solvent Effects on the Solvolysis of Trans - Dichlorotetrapyrindine
Cobalt (III) Complex in Binary Aqueous Mixtures

عنوان البحث

Kinetics and solvent effects of the equation of trans $[Co(4-(Etpy)_4Cl_2)]^+$ have been studied in ethanol + water ranging from 0 to 60% (v/v) and urea + water various solvent compositions up to 40% (w/w) of organic solvent. Thermodynamics activation parameters were computed and discussed in terms of solvation effect. Isokinetic temperature within the experimental range revealed that the existence of the compensation effect arising from the solute-solvent interaction. Nonlinear plots of $\log k$ with D^{-1} suggest that changes in the solvent structure are an important factor that influences these rates. The influence of the added cosolvent on reactivity was analyzed in light of various simple and multiple regression equations using Kirkwood, $E_T(30)$, and Kamlet-Taft parameters. The obtained results showed that the solvation phenomenon plays a dominant role in the equation.

ملخص البحث

٢. الأبحاث المقبولة للنشر

Int. J. Math. Math. Sci / USA

اسم المجلة أو الدورية

Art. ID 806502 / 10 / 2010

تاريخ النشر

Krammer's Representation of the Pure Braid Group

عنوان البحث

We consider Krammer's representation of the pure braid group on three strings: $P_3 \rightarrow GL(Z[t^{\pm 1}, q^{\pm 1}])$, where t and q are indeterminates. As it was done in the case of the braid group, B_3 , we specialize the indeterminates t and q to non zero complex numbers. Then we present our main theorem that gives us a necessary and sufficient condition that guarantees the irreducibility of the complex specialization of Krammer's representation of the pure braid group P_3 .

ملخص البحث

ZAAC Journal of Inorganic & General Chemistry

اسم المجلة أو الدورية

27 / 1 / 2011

تاريخ النشر

Sonochemical Synthesis of a Novel Nano - Scale Lead (II) Co - Ordination Polymers:

عنوان البحث

Synthesis, Crystal Structure, Thermal Properties & DFT Calculations of [Pb (dmp) (μ - N₃)(μ - NO₃)]_n with the Novel Pb₂ - (μ - N₃)₂ - (μ - NO₃)₂ Unit

ملخص البحث

Nano-structures of a new coordination polymer of divalent lead with the ligand 2, 9-dimethyl-1, 10-phenanthroline (dmp), [Pb(dmp)(μ -N₃)(μ -NO₃)]_n (1), was synthesized by a sonochemical method that produce the coordination polymers at nano-size. The new nano-structure was characterized by scanning electron microscopy, X-ray powder diffraction, IR, ¹H NMR and ¹³C NMR spectroscopy and elemental analyses. Compounds 1 was structurally characterized by single crystal X-ray diffraction and the single-crystal X-ray data shows the coordination number in Pb^{II} ions is seven, (PbN₄O₃) with "stereo-chemically active" electron lone pairs, and the coordination sphere is hemidirected. The chains interact with each other through the π - π stacking interactions which create a 3D framework. The structure of title complex has been optimized by density functional theory. Structural parameters and IR spectra for title complex are consistent with the crystal structure.

Medical Oncology

اسم المجلة أو الدورية

DOI: 10.1007 / s12032 - 010 - 9422 - 6 / 2011

تاريخ النشر

The Clinical Relevance of Urine - Based Markers for Diagnosis of Bladder Cancer

عنوان البحث

ملخص البحث

The aim of the present study was to evaluate the diagnostic relevance of urinary fibronectin (FN), telomerase (RTA), and cytokeratin 20 (CK20) mRNA in comparison with voided urine cytology (VUC). The study included 132 patients with bladder cancer, 60 patients with benign bladder lesions, and 48 healthy individuals. All were subjected to urine cytology, estimation of fibronectin by ELISA, RTA by TRAP, and CK20 mRNA by conventional RT PCR in urothelial cells from voided urine. The best cutoff point for FN was determined by receiver operating characteristic curve (41.7 ng/mg protein) revealed the highest sensitivity for malignant (80%) followed by the benign (70%) than the healthy individuals (4.1%) at P\0.001. Also, RTA and VUC showed significant difference among the three investigated groups (P\0.001). The overall sensitivity (89.3%) and specificity (98.4%) were the highest for CK20 mRNA. Combined sensitivity of VUC with FN, RTA, and CK20 mRNA together (98.4%) was higher than either the combined sensitivity of VUC with any of them or than that of the biomarker alone. Accordingly, when the diagnostic efficacy was considered, CK20 mRNA had the highest sensitivity and specificity compared to all investigated markers.

Genetic Testing & Molecular Biomarkers

اسم المجلة أو الدورية

DOI: 10.1089 / gtmb.2010.0206 / 2011

تاريخ النشر

CYP1A1, CYP2E1, & GSTM1 Gene Polymorphisms & Susceptibility to Colorectal & Gastric Cancer Among Lebanese

عنوان البحث

Mutations in the genes encoding enzymes involved in the metabolism of chemical carcinogens can significantly affect the risk of cell transformation and cancer development. The aim of this study was to investigate the relationship between CYP1A1, CYP2E1, and GSTM1 gene polymorphisms and GI cancer incidence among Lebanese. Blood and/or paraffin-embedded biopsy samples were collected from patients and healthy controls. The genotypes were determined by polymerase chain reaction and polymerase chain reaction restriction fragment length polymorphism. The results of the present case control study show that the studied Lebanese population generally resembles Caucasian populations with respect to the considered polymorphisms. Further, the GSTM1*0/*0 genotype is a significant risk factor for gastric (odds ratio=4.1; 95% confidence interval: 1.2 - 14.5) and colorectal cancers (odds ratio=3.8; 95% confidence interval: 1.7 - 8.5); on the other hand, CYP1A1*2A and CYP2E1*6 alone are not significantly associated with GI cancer development, although CYP1A1*2A was more frequent among patients. A remarkable and statistically significant 36.5-fold increase in the risk of gastric cancer was observed among patients with CYP1A1*2A*2A combined with GSTM1*0/*0. The investigation of genetic risk factors and susceptibility gene polymorphisms in Lebanese is helpful for better understanding of GI cancer etiology.

ملخص البحث

القسم: العلوم البيولوجية والبيئية

٢/٥ إسم الباحث الرئيسي: أ. د. حنفي هليل

أسماء الباحثين المشاركين: Z. Olama & M. El-Haj

Proceedings of the 3rd EMUNI Research Souk: Innovation & Employability - The Universities Challenge

اسم المجلة أو الدورية

Environmental Factors Affecting the Microbial Production of Glycerol Using Date Molasses

عنوان البحث

٢/٦

أسماء الباحثين المشاركين: Z. Olama & Y. Toufaily

Proceedings of the 3rd EMUNI Research Souk: Innovation & Employability - The Universities Challenge

اسم المجلة أو الدورية

Bioremediation of Groundwater from Nitrate in Bekaa Valley

عنوان البحث

القسم: العلوم البيولوجية والبيئية

٢/٧ إسم الباحث الرئيسي: أ. د. زكيا علما

أسماء الباحثين المشاركين: A. Hamieh & H. Holail

Proceedings of the 3rd EMUNI Research Souk: Innovation & Employability - The Universities Challenge

اسم المجلة أو الدورية

Microbial Production of a Biodegradable Plastic

عنوان البحث

Canadian Journal of Chemistry

اسم المجلة أو الدورية

Theoretical Calculation of the Low Lying Quartet States of the CrF Molecule

عنوان البحث

The potential energy curves have been investigated for the 11 lowest quartet electronic states in the $2s+1\Lambda^{(\pm)}$ representation below 28000 cm^{-1} of the molecule CrF via CASSCF and MRCI (singly and doubly excitation with Davidson correction) calculations. Eight electronic states have been studied theoretically for the first time. The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e , and the permanent dipole moment μ have been calculated. By using the canonical functions approach, the eigenvalues E_v , the rotational constant B_v and the abscissas of the turning points r_{\min} and r_{\max} have been calculated for electronic states up to the vibrational level $v=38$. The comparison of these values to the theoretical results available in the literature shows a very good agreement.

ملخص البحث

٢/٩

أسماء الباحثين المشاركين: A. Hamdan

Journal of Modern Physics

اسم المجلة أو الدورية

Spin - Orbit Electronic Structure of the ScBr Molecule

عنوان البحث

A theoretical investigation of the spin-orbit electronic states of the molecule ScBr has been performed via CASSCF and MRCI (single and double excitations with Davidson correction) calculations. Spin-orbit effects have been introduced through semi-empirical spin orbit pseudo-potential for scandium while they have been neglected for bromine. Potential energy curves for 42 electronic states in the representation $\Omega^{(\pm)}$ have been determined along with the corresponding spectroscopic constants. The comparison of the present results with those available in the literature shows a good agreement. New results have been investigated in present work for 30 electronic states in the representation $\Omega^{(\pm)}$ for the first time.

ملخص البحث

٢/١٠

أسماء الباحثين المشاركين: S. Farhat & N. Al-Abdul

International Journal of Quantum Chemistry

اسم المجلة أو الدورية

Theoretical Calculation of the Low - Lying Electronic States of the Molecule YN

عنوان البحث

The potential energy curves of the low-lying electronic states of yttrium nitride YN have been calculated at the complete active space self-consistent field and the multireference single and double excitation configuration interaction MRSDCI. Twenty low-lying electronic states of YN in the representation $2s+1\Lambda^{(+/-)}$ and below 25000 cm^{-1} have been investigated. The harmonic frequency ω_e , the equilibrium internuclear distance r_e , the rotational constants B_e and α_e , and the electronic energy with respect to the ground state T_e have been reported for these states. Fifteen new electronic states have been studied here for the first time. The comparison between the values of the present work and the theoretical and experimental results available in the literature shows a very good agreement.

ملخص البحث

Theoretical Study with Rovibrational & Dipole Moment Calculation of Sextet States of the CrCl Molecule

عنوان البحث

The potential energy curves have been investigated for the 13 lowest sextet electronic states in the $^{2s+1}\Lambda^{(+/-)}$ representation below 53000 cm^{-1} of the molecule CrCl via CASSCF and MRCI (single and double excitation with Davidson correction) calculations. The harmonic frequency ω_e , the internuclear distance r_e , the rotational constant B_e , the electronic energy with respect to the ground state T_e , and the permanent dipole moment μ have been calculated. By using the canonical functions approach, the eigenvalues E_v , the rotational constant B_v and the abscissas of the turning points r_{\min} and r_{\max} have been calculated for the considered electronic states up to the vibrational level $v=16$. Nine electronic states have been studied theoretically here for the first time. The comparison of these values to the theoretical and experimental results available in the literature shows a good agreement.

ملخص البحث



رابعاً | المشروعات البحثية الممولة محلياً ودولياً

١. المشروعات البحثية على المستوى المحلي

القسم: العلوم البيولوجية والبيئية	١/١ إسم عضو هيئة التدريس: أ. د. حنفي هليل
"Advances in Water Treatment in Lebanon" (Co Investigator) Awards: 18,000 \$ Starting Year March 2010	عنوان المشروع البحثي
The project has two aspects: The first is underground water detection using scientific instrument. This requires collection of data, analyzing it, interpreting it and thus locating the best spot to drill a well with minimum depth to water reservoir. The second aspect involves application of available technology for treating water with high hardness and salinity characteristic of Lebanese underground water. Finally, water polluted with phenols, polyphenols, amines and dyes can be treated using cheap algae materials through agitation experiments to find the optimum conditions for best uptake, thus determining the value of capacity q (mg/g). The thermodynamic-kinetic model adopted is the one which best fit the experimental data in order to explain the mechanism of adsorption. Testing the materials using a column in order to obtain the breakthrough curve and column saturation. Reuse and regeneration experiments are necessary to find the life time of the materials.	ملخص عن المشروع البحثي
	جهة تمويل المشروع
	الفترة الزمنية المحددة للإنتهاء من المشروع
	المجلس الوطني للبحوث العلمية CNRS
	2 Years March 2012

القسم: العلوم البيولوجية والبيئية	١/٢ إسم عضو هيئة التدريس: أ. د. محمود بلبع
Detection of Helicobacter Pylori in its sources in Bekaa Valley & its Mode of Transmission	عنوان المشروع البحثي
H. pylori infection, responsible for many gastrointestinal diseases, is widespread among Lebanese population. A confirmation study for the presence of H. Pylori in different water sources (untreated and contaminated water supplies as a possible environmental source where management of public water supplies is often unreliable. H. Pylori DNA will be detected using PCR in well water ,shallow ground water, etc... To evaluate the mode of transmission of H. pylori in Lebanon, firstly an epidemiological survey throughout Bekaa valley will be undertaken. This survey will evaluate the frequency of H. pylori infection, and its relation with water contamination by H. pylori in the bekaa valley. We will screen different regions of Bekaa for infected persons by using several tests: ELISA test for the detection of antibodies against H. pylori, commercial available kits such as breath test, or stool antigen test. The origin of infection will be next determined by exploring routes of transmission: A person-to-person transmission, water contamination. Our study will focus on water as a possible vector: Samples will be taken from different water distribution system in Bekaa, ground water, irrigation water used for vegetables and fruits cultivation... In these samples, presence of H. pylori will be detected by PCR. PCR is a reliable method that has been used for detection of H. pylori in water by using primers that specifically amplify specific fragments of H.pylori DNA such as urease A subunit.	ملخص عن المشروع البحثي

Finally and based on our study, we will propose measures to prevent H. pylori from being transmitted throughout Lebanese populations. One possible measure is to eradicate H. pylori from contaminated water sources, other measures for example are to investigate the use of probiotics in the treatment of H. pylori in infected people.

ملخص عن المشروع البحثي

المجلس الوطني للبحوث العلمية CNRS

جهة تمويل المشروع

2 Years

الفترة الزمنية المحددة للإنتهاء من المشروع

القسم: العلوم البيولوجية والبيئية

١/٣ إسم عضو هيئة التدريس: د. محمد مصطفى

A New Pharmaceutical Perspective Using Glucagon - Like Peptide - 1 for the Treatment of Diabetes Mellitus

عنوان المشروع البحثي

Diabetes Mellitus is a lifelong metabolic disorder characterized by abnormal glycemic level resulting from defects in insulin secretion, insulin action, or both. Glucagon-Like Peptide-1 (GLP-1) is an incretin hormone released from the intestinal L cells after nutrient ingestion. GLP-1 is one of the most promising antidiabetic drugs and it is under intensive research studies. It stimulates insulin secretion, neogenesis of pancreatic islets, and slows apoptosis of pancreatic cells. In this study, we will monitor the expression levels of Glucagon-Like Peptide-1 receptor (GLP-1R) and its downstream signal transducers including insulin receptor substrate-1 (IRS-1) and Raf-1 as well as insulin in different tissues of rat including the heart, kidneys, liver, pancreas, and testes using western blotting. We will also determine whether there is a correlation between the tissue expression levels of GLP-1 receptor and signal transducers among five different groups of rats: Normal, diabetic, diabetic rats treated with insulin, diabetic rats treated with exendin (GLP-1 analogue), and diabetic rats treated with selenium using RT-PCR. In order to better understand the GLP-1 receptor structure-function relationship, we will use bioinformatics to predict the GLP-1 receptor topology in plasma membranes of cells and to study the functions of the receptor domains in the plasma membrane. These studies will allow us to understand the mechanisms for GLP-1R signaling in order to design new therapies for diabetes mellitus.

ملخص عن المشروع البحثي

المجلس الوطني للبحوث العلمية CNRS

جهة تمويل المشروع

2011

الفترة الزمنية المحددة للإنتهاء من المشروع

القسم: الكيمياء

١/٤ إسم عضو هيئة التدريس: أ. د. حسان حمود

"Bioremediation of Nitrate from Ground & Surface Water in Bekaa Valley" CNRS Beirut / Lebanon, Awards: 17,000 \$ Year 2011

عنوان المشروع البحثي

Isolation of nitrate-reducing bacteria from water and soil samples collected from contaminated artesian and shallow wells in Bekaa valley, in particular, Tabneen Tahta. A consortium of some bacterial nitrate reducers (indigenous) will be used in this study. Moreover, comparison will be done among the mixed culture of two or more aerobic bacterial isolates and single pure culture one at a time. Many factors will be studied to reach the optimal activity of the consortium including pH, temperature, carbon source, inoculums' levels and age, nitrogen source, and incubation period using synthetic nitrate-rich medium [7]. Kinetic test using different carbon sources and different time intervals will be evaluated to allow the quantitative comparison of the rates of nitrate consumption and biomass production.

ملخص عن المشروع البحثي

Other factors controlling the process of nitrate reduction such as medium components will be studied using a statistical design known as Plackett-Burman. The optimized conditions will be applied to nitrate contaminated water samples and nitrate levels will be measured before and after treatment to measure the efficiency of the applied denitrification. The removal of aerobic denitrifying bacteria of total nitrogen, COD, and phosphorous will be also determined in order to evaluate the efficiency of these bacteria in bioremediation of polluted water which caused eutrophication problem in Bekaa [8]. Within this domain the ability to simultaneously nitrify and denitrify under aerobic conditions of the aerobic denitrifying bacteria will be evaluated in view of their possible role in the nitrogen cycle and in particular, their effects on soil fertility, as well as their potential use in wastewater treatment [9, 10].

ملخص عن المشروع البحثي

المجلس الوطني للبحوث العلمية CNRS

جهة تمويل المشروع

2 Years March 2013

الفترة الزمنية المحددة للإنتهاء من المشروع

القسم: العلوم البيولوجية والبيئية

١/٥ إسم الباحث الرئيسي: أ.د. زكيا علما

Detection of Helicobacter Pylori in its Sources in Bekaa Valley & its Mode of Transmission

عنوان المشروع البحثي

H. pylori infection, responsible for many gastrointestinal diseases, is widespread among Lebanese population a confirmation study for the presence of H. Pylori in different water sources (untreated and contaminated water supplies as a possible environmental source where management of public water supplies is often unreliable. H. Pylori DNA will be detected using PCR in well water ,shallow ground water, etc... To evaluate the mode of transmission of H. pylori in Lebanon, firstly an epidemiological survey throughout Bekaa valley will be undertaken. This survey will evaluate the frequency of H. pylori infection, and its relation with water contamination by H. pylori in the bekaa valley. We will screen different regions of Bekaa for infected persons by using several tests: ELISA test for the detection of antibodies against H. pylori (1), commercial available kits such as breath test (2), or stool antigen test (3). The origin of infection will be next determined by exploring routes of transmission: A person-to-person transmission, water contamination. Our study will focus on water as a possible vector : Samples will be taken from different water distribution system in Bekaa, ground water, irrigation water used for vegetables and fruits cultivation... In these samples, presence of H. pylori will be detected by PCR. PCR is a reliable method that has been used for detection of H. pylori in water by using primers that specifically amplify specific fragments of H.pylori DNA such as urease A subunit (4). Finally and based on our study, we will propose measures to prevent H. pylori from being transmitted throughout Lebanese populations. One possible measure is to eradicate H. pylori from contaminated water sources, other measures for example are to investigate the use of probiotics in the treatment of H. pylori in infected people.

ملخص عن المشروع البحثي

المجلس الوطني للبحوث العلمية CNRS

جهة تمويل المشروع

2011 - 2013

الفترة الزمنية المحددة للإنتهاء من المشروع

Faculty of Pharmacy | كلية الصيدلة

تسعى كلية الصيدلة إلى التميز في مجال البحث العلمي وهي في سبيل ذلك لا تدخر جهداً للوصول إلى هذا الهدف استغلالاً للإمكانيات العملية المتاحة. حيث تتميز البحوث العلمية في مجالات الصيدلة وابتكارات الدواء بأهميتها لكل المجتمعات على مستوى العالم صحياً واجتماعياً واقتصادياً.

أولاً: تقوم الكلية بإعداد المختبرات البحثية وتجهيزها وحصر متطلباتها من الأجهزة العلمية المختلفة والمواد الكيماوية. وفي هذا الصدد تم إعداد مختبرات الأبحاث الخاصة بأقسام: الفارماكولوجي، والعقاقير والنباتات الطبية، والكيمياء الطبية. وهي في سبيلها لإعداد ثلاثة مختبرات أخرى هي: الصيدلانيات والتكنولوجيا الصيدلانية، الميكروبيولوجيا الصيدلانية، والكيمياء التحليلية.

ثانياً: تدعم الكلية وتشجع الأبحاث العلمية المشتركة بين أقسام الكلية المختلفة ومع الكليات الأخرى. كما تولي الكلية اهتماماً ببرامج الدرجات المهنية، حيث تم إعداد برنامج دكتور في الصيدلة والبدء بالدراسة فيه.

ثالثاً: يتم التدقيق في اختبار مواضيع رسائل الماجستير والدكتوراه للوصول إلى طول المشاكل الصناعية. كما تجدر الإشارة إلى أن الكلية تشجع التعاون مع الهيئات البحثية والجامعات الأخرى من لبنان وكذلك مع قطاع صناعة الدواء.

رابعاً: تشجع الكلية السادة أعضاء هيئة التدريس وطلاب الماجستير والدكتوراه على المشاركة وحضور المؤتمرات العلمية المختلفة سواء داخل لبنان أو خارجها.

ولقد جاءت أبحاث أساتذة الكلية في هذا العام بواقع (٤) أبحاث مشتركة قدمت في مؤتمرات مختلفة و(٧) منشورة في مجلات ودوريات مختلفة إلى (١) بحث مقبول للنشر كما يظهر في جدول رقم ٨.

جدول رقم (٨): حركة البحوث العلمية بأقسام كلية الصيدلة للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
-	-	2	Alexandria Journal of Pharmaceutical Sciences	العقاقير والنباتات الطبية
-	-	-	-	الصيدلانيات والتكنولوجيا الصيدلانية
-	-	1	Drug Dev. Ind. Pharm	
1	Genetic Testing & Molecular Biomarkers	2	Pakistan Journal of Nutrition	الفارماكولوجي
-	-	1	Genetic Testing & Molecular Biomarkers	
-	-	1	Saudi J. Kidney Dis. Transpl.	

<p>1. Pharmaceutical Microbiology</p>	<ul style="list-style-type: none"> - Evaluation of antibiotics and the factors affecting their efficiency - The role of the microbiologist in pharmaceutical industry - Solving problems concerned with the contamination of pharmaceutical products - Microbiological quality control
<p>2. Pharmaceutical Chemistry</p>	<ul style="list-style-type: none"> - Drug analysis and quality control - Computer-aided drug design - SAR studies - Synthesis of polymers as drug carriers - Design and formulation of chemical compounds and raw materials that are involved in the manufacturing of pharmaceutical products using various chemical pathways
<p>3. Pharmacognosy & Medicinal Plants</p>	<ul style="list-style-type: none"> - Extraction of plant active constituents using modern separation techniques - Structure elucidation and determination of the concentration of isolated chemicals using various spectral analyses - Microscopical studies of medicinal plants -Primary screening of the pharmacological activity of the isolated chemicals
<p>4. Pharmaceutical & Pharmaceutical Technology</p>	<ul style="list-style-type: none"> - Designing and formulation of dosage forms - Solving problems related to pharmaceutical industry - Transdermal drug delivery systems
<p>5. Analytical Chemistry & Drug Quality Control</p>	<ul style="list-style-type: none"> - Development of new methods for drug analysis - Pharmaceutical quality control and assurance - Analytical methods validation
<p>6. Pharmacology & Toxicology</p>	<ul style="list-style-type: none"> - Study of the effects of drugs on experimental animals and their body parts - Conducting studies to discover new drugs from different sources such as the compounds extracted from animals or plants - Biological evaluation of drugs - Study of the mode of action of drugs and drug-drug interactions - Biological screening to plant extracts used in scientific research in collaboration with other departments (especially Pharmaceutical Microbiology and Pharmacognosy)



١. الأبحاث المشتركة

القسم: العقاقير والنباتات الطبية

١ / ١ إسم الباحث الرئيسي: أ. د عبد الله محمد اللقاني

أسماء الباحثين المشاركين: أ. د. مها أحمد أبو العلا – د. محمد عبد الغنى – صيدلي محمد العاصي

Fourth Annual Conference in Biological & Biomedical Sciences

4 / 5 / 2011

Lebanese American University / Joubell

Phytochemical & Antimicrobial Study of *Inula Crithmoides* s Growing in Lebanon

Inula is a large genus of flowering plants in the family Asteraceae, native to Europe, Asia and Africa. It has been reported that this genus is paraphyletic, based on chemical data of the phenolic compounds of this genus. *Inula* is best known as a respiratory tonic used as an expectorant to ease breathing and clear the lungs in cases of asthmas, bronchitis, cough, congestion, sinus and other pulmonary infections. A bitter tonic, it is also used as a digestive herb. Other uses had been reported as diuretic, astringent, expectorant, antiparasitic, and antibacterial. In traditional Chinese medicine, *inula* was used to remove obstruction and dissolve phlegm sometimes seen with a stuffy chest, cough or shortness of breath. It is also used in combination with other herbs to treat excess belching that may be caused by a deficiency in the spleen or stomach. Previous recent literature revealed that plants of genus *Inula* have great reputation as antibacterial, antifungal, antiviral, anti-inflammatory, antioxidant, antidiabetic, antihepatotoxic, anesthetic, anticytotoxic, and cardioprotective effects. The medicinal parts of *Inula* are mainly the roots and rhizomes, which are collected in the early fall or winter for herbal preparations. But the medical interest has been increased recently on this genus, not only on the roots and rhizomes, but also in the aerial parts in both states: The dried and fresh. A large number of experimental studies proved that these effects may be attributed to the presence of a wide array of secondary metabolites including flavonoids, phenolic acids, terpenoids, and essential oils. Our work aims to study *Inula crithmoides* grown in Lebanon, and to explore its chemical constituents, especially the volatile oils that could have possible biological activities. Furthermore the antimicrobial activity of the volatile oils and the extracts have been studied.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Fourth Annual Conference in Biological & Biomedical Sciences

اسم المؤتمر

4 / 5 / 2011

تاريخ المشاركة

Lebanese American University / Joubell

مكان المؤتمر

Genus Matricaria: Chemistry & Pharmacology

عنوان البحث

Matricaria chamomilla, family Asteraceae, is a very important medicinal plant species. It is very common in the temperate regions of Europe, Asia, and America, as well as in northern and southern Africa. Plants of genus Matricaria are well known for their sedative, anxiolytic, carminative, and spasmolytic effects. In addition, it is used to treat various inflammations associated with irritations and pains such as skin diseases, wounds, eczema, ulcers, gout, neuralgia, rheumatic pains and contribute to protection against chronic health disorders such as atherosclerosis and hypertension. Moreover; recent studies demonstrated that chamomile extracts exert antihyperglycemic and antioxidative effect, suppress the growth of cancer cells by causing apoptosis. The pharmacological effect of chamomilla is mainly connected with its essential oil. The main components of the oil are (-)- α -bisabolol and chamazulene. Other components includes (-)- α -bisabolol oxide A and B, (-)- α -bisabolone oxide A, spiroethers sesquiterpenes, cadinene, farnesene, furfural, spathulenol, and matricarin, in addition to the flavonoids, coumarines, sesquiterpenes, and acetylenes. In this chapter, detailed presentations about plants of genus Matricaria will be included with chemical structures of their active metabolites, their pharmacological activities and some of the clinical studies carried out all over the world in this concern.

ملخص البحث

Conference on Innovation Drug Delivery 2nd

اسم المؤتمر

3 / 10 / 2010

تاريخ المشاركة

Italy

مكان المؤتمر

Surface Modified Magnetic Nanoparticles for Targeted Drug Delivery

عنوان البحث

Investigate the effect of formulation variables on the size and morphology of Fe₃O₄ magnetic nanoparticles for the aim of pulmonary drug delivery and controlled magnetic drug targeting.

ملخص البحث

Histocompatibilty & Cord Blood Stem Cells: From Laboratory to Patient Care 2nd

اسم المؤتمر

Middle East EFI Educational Symposium

12 - 15 / 4 / 2011

تاريخ المشاركة

Riyad / Saudi Arabia

مكان المؤتمر

Association of HLA Class II Alleles & CTLA - 4 Polymorphism with Type 1 Diabetes

عنوان البحث

Type-1 diabetes mellitus (T1DM) is a progressive complex autoimmune disease in which combinations of environmental as well as genetic factors contribute to T-cell mediated destruction of insulin-secreting β -cells of the pancreas. HLA class II alleles on chromosome 6p21 [insulin dependent diabetes mellitus 1 (IDDM1)], especially DR and DQ, show strong association with T1DM. In addition, several studies have suggested that polymorphisms in the CTLA-4 gene (IDDM12) on chromosome 2q33 form part of the genetic susceptibility for type 1 diabetes. The aim of this study was to analyze HLA alleles of the DQB1 and DRB1 genes using polymerase chain reaction using sequence specific primers (PCR-SSP) technique and to investigate the association of the A49G CTLA-4 polymorphism using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) analysis in Lebanese T1DM patients. The study was conducted on 39 Lebanese T1DM patients. Results of HLA typing showed an increased frequency of the HLA-DQB1*0201, HLA-DQB1*0302, HLA-DRB1*0301 and HLA-DRB1*0401 alleles, suggesting risk association and thus can be considered as susceptibility alleles. On the other hand, strong protection against the disease was conferred by the HLA-DRB1*110101, HLA-DQB1*0301 and HLADQB1*0601 alleles. RFLP analysis of the A49G polymorphism showed a significant increase in the G allele and GG genotype frequencies in patients, suggesting that CTLA-4 may be considered as a susceptibility gene for the development of T1DM in the Lebanese population. Analysis of the two polymorphisms showed no detectable association between the two genes. However, a significant negative association of the G allele with the DQB1*0201 allele was observed. This might indicate that the two genetic risk factors, namely HLA and CTLA-4, act independently of each other with no additive effect.

ملخص البحث



١. الأبحاث المنشورة

القسم: العقاقير والنباتات الطبية	١ / ١ إسم عضو هيئة التدريس: أ. د مها أحمد أبو العلا
أسماء الباحثين المشاركين: أ. د. عبد الله محمد اللقاني – د. هالة حمودة – صيدلي صفا شمس الدين	
Alexandria Journal of Pharmaceutical Sciences	اسم المجلة أو الدورية
Vol. 25 (1) / 37 - 40 / 2011	تاريخ النشر
Phytochemical & Antimicrobial Investigation of Inula Crithmoides L.	عنوان البحث
Tribe Inuleae includes about 200 species of plants which have been praised by man for their useful properties as herbal remedies or as sources of insecticides. In addition to the traditionally known essential oils, plants of genus Inula are reported to possess a wide range of pharmacological activities such as anti-inflammatory, antioxidant and antimicrobila activities due to its different bioactive chemical constituents. Investigation of chloroform soluble fraction of Inula crithmoides L. Roots afforded galangin (I), 4-hydroxy-3-methoxycinnamaldehyde (II), 4-hydroxy-3-methoxybenzaldehyde (III) and methyl 3,4-dihydroxy cinnamate (IV) isolated for the first time from the species growing in Egypt. The structure elucidation of the isolated compounds was established through different spectroscopic techniques. Evaluation of antimicrobial activity of light petroleum soluble fraction of the fresh flowers of the same plant showed antibacterial activity against Gram positive staph. aureus and weak antifungal activity against C. albicans.	ملخص البحث

القسم: الصيدلانيات والتكنولوجيا الصيدلانية	١ / ٢ إسم عضو هيئة التدريس: أ. د. هدى المرادني
أسماء الباحثين المشاركين: أ. د. ماجدة سماحة – أ. د. فريال الخواص – أ. د. سوراب روحاني – دعاء رجب	
J. Pharm. Sci.	اسم المجلة أو الدورية
P. 1123 - 1137 / (3) 99 / 2010	تاريخ النشر
Crystallization of Progesterone for Pulmonary Drug Delivery	عنوان البحث
The purpose of this study is to investigate the suitability of the crystallization process to produce microcrystals of progesterone for respiratory drug delivery. Crystallization of progesterone was carried out from water isopropanol (IPA) mixture. The antisolvent (water) was added at two different addition rates (10 and 100 mL/min). The mass percentage of antisolvent was varied between (50% and 75%), and the initial drug concentration was adjusted at (0.5 and 1 g/L). The effect of crystallization method (antisolvent precipitation or combined cooling and antisolvent) was also examined. These operating conditions were investigated in a 24 factorial design in an effort to optimize the process. Different solid-state and surface characterization techniques were applied in conjunction with measurements of powder flow properties using aerodynamic particle sizer (APS). Powder dispersibility and aerosol performance were analyzed using Anderson Cascade Impactor (ACI). Antisolvent addition rate, initial drug concentration and dynamic solvent composition are shown to have a significant effect on the aerosol characteristics of progesterone microcrystals.	ملخص البحث

An increase of 38.73% in the fine particle fraction (FPF) was demonstrated for some powders produced by combined cooling and antisolvent crystallization. In conclusion, it was possible to control particle size and hence, pulmonary deposition using process parameters alone, and produce particles with a narrow particle size distribution and a mean particle size of 5mm with nearly no particles larger than 10mm by direct crystallization. The suitability of deep pulmonary deposition was proved by the platelet-like morphology of processed microcrystals and greater surface-to-volume ratio than spherical particles.

Drug Dev. Ind. Pharm.

اسم المجلة أو الدورية

Vol. 36 / Number 1 / January 2010 / PP. 108 - 118 (1)

تاريخ النشر

Mucoadhesive Liposomes as Ocular Delivery System: Physical, Microbiological, & in Vivo Assessment

عنوان البحث

Mucoadhesive drug delivery is a promising strategy to overcome ocular biopharmaceutical constraints. Ciprofloxacin HCl-loaded reverse phase evaporation liposomes were coated with different concentrations and molecular weights of mucoadhesive biocompatible chitosan polymer to form chitosomes. This colloidal mucoadhesive system was evaluated in vitro and in vivo with respect to deliver the antibiotic to ocular surface. The results obtained pointed out that liposome coating process resulted in entrapment efficiency reduction and higher chitosan concentration, and molecular weight showed a more pronounced effect. No morphological differences between coated and uncoated liposomes were observed. Diffusion was the drug release mechanism from chitosomes. Concerning rheological behavior, pseudoplastic flow was characteristic to the prepared chitosomal dispersions. In addition, chitosan coating improved the ocular permeation of ciprofloxacin HCl. Microbiologically; this formulated system enhanced antimicrobial activity of ciprofloxacin HCl against both Gram-positive and Gram-negative bacteria. Moreover, this mucoadhesive system was able to inhibit the growth of *Pseudomonas aeruginosa* in rabbits' eyes for 24 hours when compared to the marketed preparation. In vivo bacterial conjunctivitis model elucidated that symptoms were controlled by the prolonged release formulation such as that done by the marketed product.

ملخص البحث

Pakistan Journal of Nutrition

اسم المجلة أو الدورية

9 (7): 624 - 636 / 2010

تاريخ النشر

Protective Effect of Silymarin on Cisplatin - Induced Nephrotoxicity in Rats

عنوان البحث

Cisplatin (CDDP) is a potent anticancer agents used for the treatment of solid tumors. However, its clinical use is often limited by its adverse effects including nephrotoxicity. The present study was designed to estimate if silymarin, a bioflavonoid with antioxidant potential can inhibit or at least ameliorate the alteration in some renal structures induced by cisplatin in rats or not. Five equal-sized groups (18 rats each) of male Sprague Dawley rats [Control, vehicle; cisplatin (5 mg/kg); silymarin (50 mg/kg) 2 h after cisplatin injection; and silymarin (50 mg/kg) 2 h before cisplatin injection] were used. Results revealed that cisplatin produced animal behavioral and morphological changes, as well as cellular and subcellular changes in kidneys.

ملخص البحث



The most important changes were: Decreased body weight, increased kidney wet weight, atrophied glomeruli, dilated urinary space, loss of PCT brush borders, hypertrophied podocyte pedicels, thickened glomerular basement membrane as well as tubular cell vacuolization. Post-treatment of silymarin 2 h after cisplatin however, significantly increase the body weight returning it to normal value, yet it failed in complete protection against the pathological alteration caused by cisplatin. Pre-treatment with silymarin 2 h before cisplatin significantly decreased the histological and ultrastructural changes induced by cisplatin and appear highly protective. These results suggested that the effects of cisplatin on glomerular and renal tubular cells morphology could be totally or to a great extent inhibited by silymarin.

Pakistan Journal of Biological Sciences

اسم المجلة أو الدورية

13 (10): 463 - 479 / 2010

تاريخ النشر

Cisplatin - Induced Hepatotoxicity in Rats: Histopathological & Ultrastructural Studies

عنوان البحث

The benefit of silymarin, a plant extract with strong antioxidant activity against hepatotoxicity induced by cisplatin in rats was investigated in this study. Cisplatin is one of the most effective chemotherapeutic drugs, yet it alone does not achieve a satisfactory therapeutic outcome and at high doses it can produce undesirable side effects. Five equal-sized (18 rats each) of male Sprague Dawley rats [control, vehicle, cisplatin; silymarin 2 h after cisplatin injection; and silymarin 2 h before cisplatin injection] were used. Histopathological and ultrastructural observation of livers were carried out using light and electron microscopy. Results documented that cisplatin produced behavioral, external features, animal changes, as well as hazard pathological picture changes in liver where most hepatocytes appeared diminutive with vacuolated cytoplasm, sinusoids dilated and organelle disorganized. These results revealed that cisplatin may be toxic and terminates in complex liver damage. Administration of silymarin 2 h after cisplatin, significantly increased the body weight returning it to normal, yet it failed in complete protection against the pathological alteration caused by cisplatin. Pretreatment with silymarin 2 h before cisplatin significantly decreased the pathological changes induced by cisplatin and appeared highly protective. These results suggested that silymarin possesses protective effects against cisplatin hepatotoxic action in animal models. Since, no significant toxicity of silymarin is reported in human studies, this plant extract can be used as a dietary supplement by patients taking anticancerous medications and might serve as a novel combination agent with cisplatin since it plays a significant role in reducing its toxicity.

ملخص البحث

Genetic Testing & Molecular Biomarkers

اسم المجلة أو الدورية

14 (6): 1 - 6 / 2010

تاريخ النشر

Association Between Angiotensin Converting Enzyme Insertion / Deletion Genetic Polymorphisms & Hypertension in a Sample of Lebanese People

عنوان البحث

Background/Aim: Several studies have looked at the potential link between Angiotensin converting enzyme (ACE) insertion/deletion (I/D) polymorphism and the risk of hypertension, and have shown that the DD polymorphism may be associated with a higher prevalence of hypertension. Our objective was to assess for possible association between ACE variants and hypertension in a sample of Lebanese patients. Methods: One hundred ninety-two Lebanese subjects were included.

ملخص البحث



DNA was isolated and amplified by Polymerase Chain Reaction. The products were then identified by gel electrophoresis according to their size. Results: 115 (59.9%) patients were hypertensive and 77(40.1%) were non hypertensive with the following genotype frequencies: 43.3%DD, 45.2% ID, and 11.4%, II compared with 35.2% DD, 51.9% ID, 12.9% II, respectively. Age was found to be the most significant risk factor for hypertension. This was more prominent when accounting for ACE genotype; for instance, the DD genotype with age had a higher odds ratio (OR=11.852; p=0.001) than the ID genotype with age (OR=4.599; p=0.006), II genotype with age (OR=1.866; p=0.519), and age alone (OR=5.558; p=0.006). Conclusion: Our results show that the ACE I/D polymorphism is common in Lebanon, and that the ACE D allele is associated with an increased risk of hypertension.

Type-1 diabetes mellitus (T1DM) is a progressive complex autoimmune disease in which combinations of environmental as well as genetic factors contribute to T-cell mediated destruction of insulin-secreting β -cells of the pancreas. HLA class II alleles on chromosome 6p21 [insulin dependent diabetes mellitus 1 (IDDM1)], especially DR and DQ, show strong association with T1DM. In addition, several studies have suggested that polymorphisms in the CTLA-4 gene (IDDM12) on chromosome 2q33 form part of the genetic susceptibility for type 1 diabetes. The aim of this study was to analyze HLA alleles of the DQB1 and DRB1 genes using polymerase chain reaction using sequence specific primers (PCR-SSP) technique and to investigate the association of the A49G CTLA-4 polymorphism using polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) analysis in Lebanese T1DM patients. The study was conducted on 39 Lebanese T1DM patients. Results of HLA typing showed an increased frequency of the HLA-DQB1*0201, HLA-DQB1*0302, HLA-DRB1*0301 and HLA-DRB1*0401 alleles, suggesting risk association and thus can be considered as susceptibility alleles. On the other hand, strong protection against the disease was conferred by the HLA-DRB1*110101, HLA-DQB1*0301 and HLADQB1*0601 alleles. RFLP analysis of the A49G polymorphism showed a significant increase in the G allele and GG genotype frequencies in patients, suggesting that CTLA-4 may be considered as a susceptibility gene for the development of T1DM in the Lebanese population. Analysis of the two polymorphisms showed no detectable association between the two genes. However, a significant negative association of the G allele with the DQB1*0201 allele was observed. This might indicate that the two genetic risk factors, namely HLA and CTLA-4, act independently of each other with no additive effect.

Genetic Testing & Molecular Biomarkers

اسم المجلة أو الدورية

Study of the association of -403G / A and -28C / G RANTES Gene Polymorphisms & Asthma in Lebanon

تاريخ النشر

عنوان البحث

Asthma is a complex inflammatory condition often associated with bronchial hyperreactivity and atopy. Genetic and environmental factors are implicated and several candidate genes have been studied. Of these, the CC chemokine regulated upon activation, normal T-cell expressed and secreted (RANTES), responsible for the recruitment of inflammatory cells such as eosinophils and T-lymphocytes, indicating a possible role for this chemokine in asthma. Both the -403A and -28G alleles of the RANTES promoter region exhibit significantly enhanced promoter activity in reporter constructs in vitro and were found associated with asthma/atopy in some studies but not others, possibly reflecting the genetic heterogeneity among different ethnicities. We therefore investigated the genetic influence of these alleles on the development of asthma using case-control analysis in a Lebanese population. RANTES genotyping was performed by polymerase chain reaction restriction fragment-length polymorphism (PCR-RFLP) in 40 asthmatic patients with non-atopic (n=14) and atopic (n=26) asthma and 38 controls. The 87.5% of the patients for -403G/A had the G allele and the A allele frequency was 12.5%. Among the control subjects, the -403G allele frequency was 89.5% and the A allele was 10.5%. Concerning the -28C/G polymorphism, the frequency of the RANTES -28G allele in control subjects is 1.3%. After comparing patients with asthma, atopic patients, non-atopic patients and control population, we found no significant deviation in the distribution of the alleles or genotypes of RANTES promoter polymorphisms in any tested comparison. Therefore, human RANTES gene promoter polymorphisms are not associated with asthma susceptibility in the Lebanese population.

ملخص البحث

Faculty of Medicine | كلية الطب

كلية الطب في جامعة بيروت العربية بصدد إتمام تشكيل اللجنة الاستشارية، وقد روعي في التشكيل إمكانية إستغلال قواعد بيانات المستشفيات التي ينتمي إليها أعضاء اللجنة وكذلك مشاركتهم الذاتية في البحث العلمي. وبذلك أتم الباحثون ما يلي:

- (١) بحث مسجل كرسالة ماجستير في الجراحة العامة للطبيب/باسم محمود أبو حسين، بعنوان: "الفاعلية والأمان لعملية الاستئصال الكامل للغدة الدرقية كعلاج لأمراضها الحميدة"، وقد تم مناقشتها وإجازتها في ٢٠١١/٣/١٨.
- (١) بحث شارك في اليوم البحث العلمي كما سيتم تفصيله في خانة المشاركة في المؤتمرات العلمية.
- (١) نشر مقالة و(١) مقالة مقبولة للنشر في نفس المجلة كجزء من نتائج مشروع بحثي ابتدأه بالولايات المتحدة الأمريكية، والمشروع معلق الآن ويحاول الباحث تهيئة الظروف لتنشيطه ثانية. كما يشار إليه في جدول رقم ٩.

جدول رقم (٩): حركة البحوث العلمية لكلية الطب للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
1	Clinical Anatomy	1	Clinical Anatomy	التشريح الجراحي والأجنة

المجالات البحثية المعتمدة للعام الجامعي ٢٠١٠ - ٢٠١١:

1. Surgery	<p>Intended</p> <ul style="list-style-type: none"> - Molecular genetics of thyroid cancer - Primary hyper parathyroidism, incidence, pathogenesis and treatment - Metastatic cervical lymph nodes: Modalities of management
2. Internal Medicine	<p>Ongoing</p> <p>CEA level changes during and after colonoscopy preparation</p> <p>Intended</p> <ul style="list-style-type: none"> - Prevalence of pseudo membranous colitis in DSH - Study of the pathogenesis and serological diagnosis of Inflammatory Bowel Diseases - Study the relationship between Hepatitis C Virus infection and Type 2 diabetes mellitus
3. Pharmacology	<p>Ongoing</p> <ul style="list-style-type: none"> - Drug interactions between antihypertensives - Role of Phosphodiesterase inhibitor (Tadalafil) in morphine induced analgesia in rats <p>Intended</p> <ul style="list-style-type: none"> - Drug interactions of Sildenafil - Study of the toxicological effects of drugs on experimental animals - Study of the mechanisms of action of drugs on different body system

4. Anatomy	<p>Ongoing</p> <ul style="list-style-type: none"> - Changes in the lumbosacral angle, Sacral inclination and the curvature of the lumbar spine in Lebanese with aging <p>Intended</p> <ul style="list-style-type: none"> - Anatomy of the sublingual gland
5. Anatomy	<p>Ongoing</p> <ul style="list-style-type: none"> - Changes in the lumbosacral angle, Sacral inclination and the curvature of the lumbar spine in Lebanese with aging <p>Intended</p> <ul style="list-style-type: none"> - Anatomy of the sublingual gland
6. Histology	<p>Ongoing</p> <ul style="list-style-type: none"> - Histomorphological changes in rats TMJ during mandibular advancement <p>Intended</p> <ul style="list-style-type: none"> - Stem cells at different ages in bone marrow of rats: An experimental study - Electron microscopic study of cells & tissue under normal & experimental conditions - Detection of endometrial pinopodes in hormone-Controlled cycles. A histological and histochemical study
7. Physiology	<p>Ongoing</p> <ul style="list-style-type: none"> - Prevalence and patterns of obesity - Arterial blood Pressure & Body Positioning <p>Intended</p> <ul style="list-style-type: none"> - Hormonal and cytokines assay in endocrinal disorders
8. Ophthalmology	<p>Intended</p> <ul style="list-style-type: none"> - Phaescoemulsification techniques - Ptosis - Dermal fat transplant - Mucous Membrane grafting - Hard palate grafting - Reconstruction Following enucleation - Nasolacrimal duct - Lid reconstruction



ثانياً | المؤتمرات العلمية

الوصف التشريحي للشريان التاجي الأيمن، والبحث عبارة عن بوستر تم عرضه في يوم البحث العلمي للجامعة، وقد قام بالبحث كلاً من أ. د. السيد سليمان عطا الله وأ. د. عزت عبد الخالق الصوة.

ثالثاً | حركة نشر الأبحاث العلمية

١. الأبحاث المنشورة

القسم: التشريح الجراحي والأجنة

١/١ إسم عضو هيئة التدريس: أ. د. رمضان الغرباوي

أسماء الباحثين المشاركين: رمضان محمود الغرباوي - لي جون إسكندلاكس - توماس هيفرون - جون إسكندلاكس

Clinical Anatomy

اسم المجلة أو الدورية

24 : 429 - 440 / 2011

تاريخ النشر

Aberrant Bile Ducts, 'Remnant Surface Bile Ducts', & Peribiliary Glands: Descriptive Anatomy, Historical Nomenclature, & Surgical Implications

عنوان البحث

The term "aberrant bile ducts" has been used to designate three heterogeneous groups of biliary structures: (1) bile ducts degenerating or disappearing (unknown etiology, diverse locations); (2) curious biliary structures in the transverse fissure; and (3) aberrant right bile ducts draining directly into the common hepatic duct. We report our observations on these three groups. Twenty-nine fresh human livers of stillborns and adults were injected differentially with colored latex and dissected. Adult livers showed portal venous and hepatic arterial branches, and bile ducts not associated with parenchyma, subjacent to and firmly adherent with the liver capsule: Elements of ramifications of normal sheaths were present on the liver's surface. These ramifications, having lost parenchyma associated with them, then sequentially lost their portal branches, bile ducts and arterial branches.

ملخص البحث

This process affected the ramifications of the sheaths in the left triangular ligament, adjacent to the inferior vena cava, in the gallbladder bed and anywhere else on the liver's surface and resulted in the presence of bile ducts accompanied by portal venous and/or hepatic arterial branches and not associated with parenchyma for a period of time. This first group represented normal bile ducts that do not meet the criteria of aberration and could be appropriately designated "remnant surface bile ducts". Such changes were not found in the transverse fissures and review of the literature revealed that the curious biliary structures are the microscopic peribiliary glands. The third group met the criteria of aberration and the anatomy of a representative duct is described. Clin. Anat. 24:000 000, 2011. V.

٢. الأبحاث المقبولة للنشر

القسم: التشريح الجراحي والأجنة

١/٢ إسم عضو هيئة التدريس: أ.د. رمضان الغرباوي

أسماء الباحثين المشاركين: رمضان محمود الغرباوي - لي جون إسكندلاكس - توماس هيفرون - جون إسكندلاكس

Clinical Anatomy

اسم المجلة أو الدورية

24 : 000 - 000 / 2011

تاريخ النشر

Parenchyma - Wise Technique for the Harvest & Implantation of Hepatic Segment 2 - 3

عنوان البحث

Grafts: Anatomic Basis & Surgical Steps

ملخص البحث

We propose a technique for pediatric liver transplantation that does not waste the donor's parenchyma. Organ shortage has extended criteria for donor acceptance, such that even individuals with livers of suboptimal volume can donate their segment 2 - 3. By incorporating wise use of parenchyma, our proposed technique for harvesting segment 2 - 3 for implantation in a pediatric recipient benefits these and other donors, and it might increase donations. This is especially important in countries in which procurement of organs from the deceased is not allowed. Our technique also aims to solve the problem of the large-for-size syndrome for neonates and extremely small infants and to allow for primary closure of the abdomen. This technique enables harvest of the following four grafts: (1) complete segment 2 - 3; (2) reduced segment 2 - 3; (3) complete segment 3; and (4) reduced segment 3. The type selected will be that that has suitable graft-to-recipient weight ratio and that suits the donor's liver anatomy and volume. These four types benefit the donor by preserving the parenchyma of segment 4 and the left part of the caudate lobe. The three graft types other than the complete segment 2 - 3 graft will also preserve varying fractions of the parenchyma of segment 2 - 3. The technique for complete segment 2 - 3 graft can be put into practice immediately; the techniques for the other three grafts need an imaging modality to preoperatively delineate the donor's fourth-order bile ducts. We expect to correct this deficiency in the near future by developing the requisite imaging technique. Clin. Anat. 00:000 000, 2011. WVC 2011 Wiley-Liss, Inc.

Faculty of Dentistry | كلية طب الأسنان

تم في مجال تطوير البحث العلمي تصنيف جميع الرسائل المسجلة في الكلية ضمن محاور للبحث العلمي، وقد تم الاشتراك بقاعدة بيانات لمجلات البحث العلمي في طب الأسنان للتسهيل على طلاب الدراسات العليا لإيجاد المراجع العلمية وآخر المنشورات ضمن المجال البحثي لرسائل الدراسات العليا. كما تم تطوير المكتبة وتجهيزها بإثني عشر كمبيوتر لتسهيل عملية البحث. وتم استحداث مختبر بيولوجيا الفم وتجهيزه بميكروسكوب مع كاميرا رقمية لتصوير العينات. وتراوح عدد الأبحاث المشاركة في المؤتمرات الداخلية والخارجية بـ(١١) بحثاً، والمقبولة للنشر بـ(٣) أبحاث كما يبين الجدول رقم ١٠.

جدول رقم (١٠). حركة البحوث العلمية لكلية طب الأسنان للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
1	-	-	-	تقويم الأسنان
1	-	-	-	
1	-	-	-	

المجالات البحثية المعتمدة للعام الجامعي ٢٠١٠ - ٢٠١١:

1. Community Dentistry	<ul style="list-style-type: none"> - Oral and dental health education and program - Epidemiological studies related to different diseases in Lebanon - Prevention of oral and dental diseases
2. Dental Biomaterials	<ul style="list-style-type: none"> - Dental implant materials - Dental adhesives - Biocompatibility of dental materials - Physical and mechanical characteristics of dental materials - Biomaterials in Prosthodontics - Microleakage of different types of restorative materials
3. Endodontics	<ul style="list-style-type: none"> - Microbiology in endodontics - Endodontic surgery - Evaluation of recent endodontic rotary instrumentation - Evaluation of recent endodontic filling techniques
4. Oral Biology	<ul style="list-style-type: none"> - Tissues renewal and repair - Extracellular matrix (ECM) and cell-matrix - Immune system - Bone biology - Tissue engineering and biomaterials

5. Oral Pathology	<ul style="list-style-type: none"> - Autoimmune diseases - Oral soft and hard tissue diseases - Blood diseases - Genetics of oral cancer
6. Oral Surgery	<ul style="list-style-type: none"> - Osteotomies with ultrasonic and laser procedures - Techniques for the surgical removal of impacted teeth - Different graft placement significance - Implant survival, immediate versus delayed load implant
7. Orthodontics	<ul style="list-style-type: none"> - Tissue reaction to tooth movement in orthodontics - The physiology of healing after surgical expansion of the maxilla - Histological changes in modifying the growth of the maxilla and the mandible - Interdisciplinary management of Cleft and lip patients - Cephalometrics in orthodontics - Development changes in dental arch form
8. Pediatric Dentistry	<ul style="list-style-type: none"> - Restorative materials in pediatric dentistry - Management of disabled children - New generations of adhesives in primary teeth - Non invasive techniques in primary teeth
9. Periodontology	<ul style="list-style-type: none"> - Microbiology and immunology in periodontics - Implantology in periodontics - Reconstructive and resective osseous surgery - Plastic periodontal surgery - Laser in Periodontics
10. Prosthodontics	<ul style="list-style-type: none"> - Biological consideration in prosthodontics - Esthetics in prosthodontics - Implantology in prosthodontics - New trends in ceramics - Maxillo-facial prosthodontics - Geriatric prosthodontics
11. Restorative Dentistry	<ul style="list-style-type: none"> - Cariology - Esthetic dentistry - Adhesive dentistry - Biological considerations of restorative techniques and materials - Non invasive strategy and new treatment modalities



١. الأبحاث المنفردة

القسم: تقويم الأسنان	١/١ اسم عضو هيئة التدريس: أ. د. فايز صالح
Beirut International Dental Meeting	اسم المؤتمر
22 - 25 / 9 / 2010	تاريخ المشاركة
Emile Lahoud Cultural Center / Dbayeh / Lebanon	مكان المؤتمر
Early vs Adult Orthodontic Correction of Angle's Class II Malocclusion	عنوان البحث
<p>In the last century, early orthodontic treatment of Class II malocclusion due to mandibular deficiency received a considerable support as a means of gaining the greatest possible control over mal-growing dentofacial components. However, recent published randomized controlled clinical trials revealed that most early (preadolescent phase I) orthodontic treatment has to be followed by a second stage of treatment (comprehensive fixed, phase II) during adolescence when the permanent teeth are available for final positioning. In other words, early treatment was no more effective and considerably less efficient than comprehensive fixed orthodontic treatment during adolescence.</p> <p>This presentation aims to stress on the indications for early treatment of Class II cases and elaborate on different treatment modalities including fixed functional appliances for adult Class II cases with or without extraction of teeth in the arch.</p>	ملخص البحث
	١/٢
6th International Conference of the Egyptian Association of Oral & Maxillofacial Surgeons	اسم المؤتمر
14 - 17 / 10 / 2010	تاريخ المشاركة
Nile Hilton Hotel / Cair / Egypt	مكان المؤتمر
Orthosurgical Repair of Cleft Lip & Palate Deformities, Professional Limitations & Patients' Perception	عنوان البحث
<p>Restoring the normal aesthetics and function of cleft lip and palate patients will remain one of the most important objectives and a real challenge for the health care delivery team. Since oral and para-oral structures are congenitally and severely mutilated, a multidisciplinary treatment approach is always adopted including: Plastic maxillofacial surgeon, orthodontist, prosthodontist, periodontist, implantologist, speech therapist and psychiatrist, a few to mention.</p> <p>In this presentation, the author will emphasize on collaboration between the cleft lip and palate team members, and will stress on the role of the orthodontist in establishing normal arch form and size to allow for the reconstruction of cosmetic lips, nose, and beautiful smile. The rate of success, professional limitations and patients' satisfaction will also be considered.</p>	ملخص البحث

6th International Conference of the Egyptian Association of Oral & Maxillofacial Surgeons

اسم المؤتمر

14 - 17 / 10 / 2010

تاريخ المشاركة

Nile Hilton Hotel / Cair / Egypt

مكان المؤتمر

Course Outline

عنوان البحث

Day I, Duration: Hours (9 am - 2 pm)

ملخص البحث

I. Hands-on training program:

This enables participants to gain experiences in proper diagnosis, treatment planning, and selecting the simplest but efficient treatment technique for specific cases.

Full preorthodontic records for different malocclusion groups and severities are to be assessed by participants in small group setting (interactive format).

Participants are encouraged to bring in records for caes from their practices to be evaluated by the group.

II. Round table discussion with participants (Plenary session):

- Guidelines to properly using and Interpretation of the collected data
- VTO (Visualized treatment Objectives)
- Understanding Functional and Esthetic Components of Treatemnt Objectives
- Developing participants' skills to select the appropriate treatment mechanics for different malocclusion groups and severities

Day II, Duration: 5 Hours (9pm - 2pm)

I. The timing of orthodontic Treatment

- Early vs Adult treatment, and the role of the general practitioner
- Orthodontics/periodontics interrelationship
- Different treatment modalities for different malocclusion groups
- Adult treatment of Class II Div2
- Surgical non-surgical treatment options of Class III Malocclusions

II. Emphasis on the limitations of orthosurgical correction of severe Dento-facial deformities

III. Standards of orthodontic care-Prefinishing check list

- Who sets the standards
- Monitoring treatment progress.

2nd Syrian British Dental Conference

اسم المؤتمر

28 - 30 / 10 / 2010

تاريخ المشاركة

Omayyad Palace / Damascus / Syria

مكان المؤتمر

Clinical Orthodontic Pearls in Creating a Beautiful Smile

عنوان البحث

Many orthodontists believe that the achievement of an ideal esthetic smile is a complex and difficult endeavor. Moving teeth and sometimes alveolar bone in three dimensions aim to construct balance between teeth and oral soft tissues and generate an attractive smile.

ملخص البحث

In this lecture, the author will present different orthodontic treatment modalities and focus on the collaboration between different oral health disciplines that successfully corrected severe dentofacial deformities and attained better realistic smile that satisfied patients and parents.



9th Scientific Congress of the Syrian Orthodontic Society

8 - 10 / 3 / 2011

Dedeman Hotel / Damascus / Syria

Esthetic and Functional Considerations in the Management of Anterior Openbite

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Despite the great development of orthodontic treatment modalities and appliances, and because of the infinite individual variations and complexity of the etiologic factors, anterior openbite is still considered as one of the most difficult and controversial issue regarding treatment planning, biomechanics and stability of the treatment outcome. Therefore, proper diagnosis is essential to decide the main causative factor of the discrepancy and to select the best available treatment option that would meet the acceptable standards of facial harmony and restore the normal lip teeth relationship or beautiful smile.

In this lecture, the author will briefly review our current knowledge about the anatomical, functional and esthetic consequences of openbite; and will present a variety of clinical cases that needed early intervention, camouflage or, because of the severe skeletal deformity in three dimensions, necessitated combined Orthosurgical correction.

1st Orthodontic Conference

1 - 2 / 4 / 2011

Triumph Hotel / Cairo / Egypt

Surgical vs Non Surgical Correction of Dentofacial Skeletal Deformities, Guidelines & Limitations

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Moderate to severe dentofacial deformities including cleft lip and palate cases are a real challenge for the orthodontist and maxillofacial surgeon as well as for the rest of the health care team. The decision to treat such cases surgically or non-surgically is not only left for the clinicians but also for other economic and cultural considerations related to the patients and their parents. Surgical procedures massively alter the relations and ratios of the facial features, the health care team (orthodontist and the maxillofacial surgeon, in particular) should be aware of the complex nature of severe skeletal discrepancies and therefore, will collaborate to select the best available treatment options that would meet the acceptable standards of facial harmony and balance and maintain the individual's facial characteristics.

In this lecture the author will present different treatment modalities relevant to each deformity and to emphasize the importance of collecting enough data for each case, formulate an individualized treatment planning jointly with other disciplines, and perform a finishing check-list as part of treatment outcome and retention phase.

1st Orthodontic Conference

2 / 4 / 2011

Triumph Hotel / Cairo / Egypt

Cephalometrics, from Theory into Practice

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

A 1-day hands-on course designed for dentists and junior orthodontic residents who are interested in enhancing their diagnostic skills and formulating an appropriate treatment planning for selected orthodontic cases.

Learning objectives of the course: At the end of this course, each participant should, hopefully, be familiar with the following:

- Anatomic landmarks identification (validity and reliability of landmarks identification)
- Conventional vs Computerized Tracing
- Cephalometric Analyses (Is there an ideal best analysis?)
- Clinical Value Cephalometrics (strengths & limitations)

Morning Session: 9 - 10 am

I. Introduction: The Diagnostic Value of Cephalometrics:

1. For the Clinician

- Clinical Evaluation/Treatment Planning Tool (VTO)
- Evaluate Dentofacial Proportions in 3Ds
- Clarify the Anatomic Basis for Malocclusion
- Monitor Changes in Jaw & Tooth Position:
 - In Growing Subjects (Growth & Treatment)
 - In Non-Growing Subjects: Dentoalveolar changes due to tooth movement only & skeletal changes after orthosurgical procedures

2. For the Researcher (Craniofacial Research Studies)

- Assessment of growth changes for a certain population
- Comparison with other ethnic groups
- Developing normal values (standards)

3. Different Cephalometric Analyses

- Conventional vs Computer-Aided Techniques

II. Practical Session (Cephalometric Tracing): 10 - 11:30 am

- Cephalometric Tracing and Case Analysis:
 - Landmarks Identification and Testing its Validity & Reliability
 - Tracing Cephalograms for Real Patients
 - Analysis and Diagnostic Summary
 - Clinical Value of Cephalometric Tracing

Each participant is requested to bring a tracing kit (Ruler, protractor, pencil, sharpener, eraser, tracing papers, and colored pens-red, green) in addition to x-ray viewer 25x40cm and several cephalograms if available.



III. Round table discussion with participants (plenary session): 12 - 14 pm
 Guidelines to properly using and interpretation of the collected data
 - VTO (Visualized Treatment Objectives)
 - Understanding functional and esthetic components of treatment objectives
 Closing remarks and feedback 15:30 - 17 pm
 Distribution of the certificates
 Att. Dr. Racha Seragelden
 Administrative preparatory requirements for the course:
 - Negatoscopes (x-ray viewers, 1 per 4 participants)
 - Tracing paper booklet
 - Pencils, sharpeners, erasers, rulers and protractors
 - Certificates (printed names of the participants).

ملخص البحث

١/٨

7th Jordanian Orthodontic Congress

6 - 7 / 4 / 2011

Sheraton Amman Hotel / Amman / Jordan

Clinical Pearls in the Management of Class III Malocclusion, Early vs Adult Treatment Modalities

Because of the infinite individual variations and the complexity of its etiologic factors, class III malocclusion it is still considered as one of the most difficult and controversial regarding treatment timing and modality.

Since the deformity in Class III malocclusion involves different craniofacial components (Skeletal, dento-alveolar, and soft tissue in three dimensions), most orthodontists are reluctant to start early orthopedic treatment of class III patients because of the inability to predict mandibular growth and the history of relapse that may need second treatment phase or even surgical intervention in severe cases.

In this presentation, the author will briefly review the concept of controlling the abnormal class III growth patterns and will show the determinant factors that made him decide whether a patient would require growth modification, camouflage or even orthognathic surgery.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

١/٩

7th Jordanian Orthodontic Congress

6 - 7 / 4 / 2011

Sheraton Amman Hotel / Amman / Jordan

Innovative Strategies in the Management of Class II Malocclusion

Since the majority of Class II cases have some sort of skeletal imbalance which becomes apparent in the mixed dentition phase, many treatment modalities are currently available for its correction depending on the age of the patient and severity of the case. A good differential diagnosis seems essential to formulate an appropriate treatment planning and to achieve satisfactory outcome. Early treatment or growth modification using functional appliances were assumed to stimulate mandibular growth and thus can improve facial esthetics and functional occlusion. However recent studies, based on available evidence, cannot support this and instead recommended fixed functional appliances to be more effective and of long term stability even in adult patients.

This presentation will focus on the different techniques and approaches that allow the statistical evaluation of the effectiveness of early orthodontic treatment and growth modification as well as the validity of camouflage comprehensive treatment in adults with or without extraction of certain teeth in one or both arches.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث



7th Jordanian Orthodontic Congress

6 - 7 / 4 / 2011

Sheraton Amman Hotel / Amman / Jordan

The Judgement of the Success of Ortho - Surgical Treatment Outcome, Do Patients & Clinicians Share Similar Views & Which Aspects They Consider?

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

Combined orthosurgical correction of severe dentofacial deformities aims to produce more harmonious facial relationship and to improve occlusal function. Since surgical procedures massively alter the relations and ratios of the facial features, the health care team (orthodontist and the maxillofacial surgeon, in particular) should be aware of the complex nature of severe skeletal discrepancies and therefore, will collaborate to select the best available treatment options that would meet the acceptable standards of facial harmony and balance and maintain the individual's facial characteristics.

The purpose of this presentation is to emphasize the interdisciplinary nature of orthosurgical correction of severe facial deformities and the necessity to respect standard guidelines and uniqueness of each individual facial characteristics. The author will also present retreated orthosurgical cases which because of the lack of professional cooperation; the outcome was disappointing and resulted with serious psychic trauma to the patients and parents.

ملخص البحث



١. الأبحاث المقبولة للنشر

القسم: تقويم الأسنان

١/١ إسم عضو هيئة التدريس: أ. د. فايز صالح

The Position of the Hyoid Bone in Different Facial Patterns, a Lateral cephalometric Study

عنوان البحث

The search for reliable and valid anatomic landmarks in the craniofacial region for cephalometric purposes continues. During the last two decades, considerable attention has been given to the position of the hyoid bone in relation to the facial skeleton the hyoid bone represents one of these landmarks that orthodontic profession can rely upon to relate the different facial structures in the sagittal direction for orthodontic diagnostic purposes. The purpose of this study was to evaluate the position of the hyoid bone in both sagittal and vertical planes in different sagittal facial patterns: (Class I, Class II and Class III).

ملخص البحث

١/٢

The Ultrastructural Changes of the Mandibular Condyle & Glenoid Fossa Using Fixed Functional Appliances with Local Injection of Growth Hormone

عنوان البحث

The purpose of this study was to investigate the effect of the mandibular advancing orthodontic appliances on the TMJ with and without local injection of growth hormone. **Materials and Method:** 48 Sprague-Dawley rats were equally divided into three groups. The condyles of Group A were injected directly with 5.3mg Somatotropin -growth hormone- and subjected to an acrylic inclined anterior bite plate cemented to the maxillary incisors in order to position the mandible in a forward and downward direction with a constant continuous force. Group B received similar acrylic inclined bite plate as in group A but without injection, Group C acted as a control group under observation. Animals were caged under regulated light; humidity and temperature (approved by the Animal Ethics Committee of BAU) and were fed soft diet until the time of surgery. Specimens of hemicranium were cut and dissected, sliced at 7u thickness by microtome and spread on slides. Slides were then stained and examined under light microscope.

ملخص البحث

Results: An abundant cellular proliferation expressed at the posterior border of the condylar cartilage in group A than in group B. Cellular proliferation without proper ossification was noticed on the condyles of young rats of group A. However, adult rats of the same group revealed a significant condylar ossification and higher osteoblastic activity towards the last week of treatment. The results have also shown that male rats were more responsive to the hormone rather than female. However, neovascularization and osteoblastic activity in young rats were noticed more than in older ones.

Conclusion: Mandibular condylar growth was accelerated by using growth hormone and orthodontic appliance rather than by using the appliance alone.

Key Words: Bite-jumping appliances, class II malocclusion, condylar histological changes, condylar growth, Somatotropin growth hormone.

Submicroscopic Changes in Rat TMJ after Continuous Mandibular Advancement & Local Injection of Somatotropin

عنوان البحث

This study aimed to investigate the submicroscopic changes in rat TMJ after continuous mandibular advancement and local injection of Somatotropin.

ملخص البحث

Materials and Method: 32 Sprague-Dawley rats were equally divided into three groups. Rats of Group A were injected directly with 5.3mg Somatotropin-growth hormone-and an acrylic inclined anterior bite plate was cemented to their maxillary incisors to keep the mandible all the time in an anterior position and subjected to a constant force. Group B received similar acrylic inclined bite plate as in group A but without injection, Group C acted as a control group. Animals were caged under regulated light; humidity and temperature (approved by the Animal Ethics Committee of BAU) and were fed soft diet until the time of surgery. Specimens of hemicranium were cut and dissected, sliced at 7u thickness by microtome and spread on slides. Slides were then stained and examined under light microscope.

Results: Group A has shown abundant cellular proliferation at the posterior border of the condylar cartilage as compared to group B. Cellular proliferation without proper ossification was noticed on the condyles of young rats of group A. However, adult rats of the same group revealed a significant condylar ossification and higher osteoblastic activity towards the last week of treatment. The results have also shown that male rats were more responsive to the hormone rather than female. However, neovascularization and osteoblastic activity in young rats were noticed more than in older ones.

Conclusion: Remarkable mandibular condylar growth was noticed with those using growth hormone and orthodontic appliance rather than by using the appliance alone.

Key Words: Bite-jumping appliances, class II malocclusion, condylar histological changes, condylar growth, Somatotropin growth hormone.



Faculty of Health Sciences | كلية العلوم الصحية

على الرغم من حداثة الكلية فقد أولت اهتماماً خاصاً لتحفيز البحث العلمي لأعضاء هيئة التدريس، فخرجت الأبحاث بواقع (٢) بحثين ضمن تصنيف الأبحاث المقبولة في المؤتمرات و(٤) أبحاث ضمن حركة نشر البحوث في المجلات أو الدوريات، مع تجلي صورة الدعم المحلي من قبل المجلس الوطني للبحوث العلمية بدعمه (١) لبحث مشترك تابع للكلية. أما جدول رقم ١١ يبين حركة نشر البحوث العلمية كالتالي:

جدول رقم (١١). حركة البحوث العلمية لكلية العلوم الصحية للعام الجامعي ٢٠١٠-٢٠١١

البحوث المقبولة للنشر		البحوث المنشورة		القسم
عدد البحوث	المجلة/الدورية	عدد البحوث	المجلة/الدورية	
-	-	1	Med. Journal Cairo University	التمريض
-	-	1	Eastern Mediterranean Health Journal	
-	-	1	Journal of American Science	
-	-	1	Cellular Immunology	المختبرات الطبية

لذا فقد كان هناك تقدماً بالنسبة لعدد الأبحاث وكذلك التخصصات وذلك ضمن إطار الخطة البحثية للكلية والتي تغطي المحاور التالية:

- Challenges in Patient Management
- Health, illness continuum, Health perspectives
- Health, wellness and health promotion
- Quality improvement and evidence - based practice

١. الأبحاث المشتركة

القسم: التمريض

١/١ إسم الباحث الرئيسي: د. نسرين عزت محمد عبد الكريم
أسماء الباحثين المشاركين: ميرنا فواز – جامعة بيروت العربية

RESOUK " 3rd EMUNI "

21 / 3 / 2011

BAU / Lebanon

Validity Testing of a Newly Developed Infection Control Dental Standards

Health care associated infections are a worldwide problem; they could occur in any health care setting; hospitals, community services or dentistry clinics. Since the awareness of dental staff of the procedures are required for civil protection and to prevent infection transmission, thus infection control policy for practice should be reviewed regularly and updated when necessary. It should be kept readily available, so that staff could refer to it, when needed. Aim: The present study aims to test the validity of a newly developed infection control standards for patients at the Outpatient Dental Clinics, Faculty of Dentistry, Beirut Arab University. Materials and Methods: This study is an analytic research design. This tool was developed by the researcher after a thorough review of related literature. "The BAU Dental Clinics Infection Control Standards". It included two parts; one related to structure and the other related to process. For testing its appropriateness, applicability and feasibility the developed tool was introduced to a jury of seven experts in the field of nursing and dentistry. It was also tested for content validity, inter-rater reliability and necessary modifications will be done. Results will be analyzed and tabulated. Conclusion and recommendations will be presented.

Keyword: Dental clinics, infection control, standard, validity, inter-rater reliability.

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

١/٢

أسماء الباحثين المشاركين: د. كاميليا صابر – جامعة الملك فيصل – المملكة العربية السعودية

1st International Conference by the order of Nurses in Lebanon

13 / 5 / 2011

Beirut / Lebanon

Perceptions of Nursing Among Newly Graduates Nurses in Two Cultures: Lebanese & Saudi Arabia

Nursing encompasses autonomous and collaborative care of individuals of all ages, families, groups and communities, sick or well and in all settings as defined International Council of Nursing. There are a number of definitions of nursing but few, if any, that explicitly enable a benchmark nursing statement to be identified. Newly graduates, from different cultures backgrounds (Lebanese and Saudi Arabia), may perceive nursing differently. Aim: The present study aims to identify the perceptions of nursing among 2 different groups of newly graduated nurses (Lebanese and Saudi).

اسم المؤتمر

تاريخ المشاركة

مكان المؤتمر

عنوان البحث

ملخص البحث

Materials and Methods: This study is a descriptive research design. It included all newly nurses graduates of year 2009 from Beirut Arab University, Lebanon and King Faysal University, Saudi Arabia. The 35-item Nursing Dimensions Inventory (NDI-35) was used to gather perceptions of newly graduates (Lebanese and Saudi Arabia) nurses. Data were collected by asking participants to complete and return the NDI-35 to both researchers and this was achieved in both settings (Lebanese and Saudi Arabia). It should be noted that the nurse education systems in both; Beirut Arab University, Lebanon and King Faysal University, Saudi Arabia at the time of data collection were very similar and there were no special features of the programme being studied which made it different from each other. Data collected was coded, tabulated, and proper statistical analysis was used. Results will be analyzed and tabulated. Conclusion and Recommendations will be presented.

ثالثاً | حركة نشر الأبحاث العلمية

١. الأبحاث المنشورة

القسم: التمريض

١/١ إسم عضو هيئة التدريس: أ.د. هند حسن متولي

أسماء الباحثين المشاركين: N.M. Salem-D.N.Sc., M.A. Aueda-D.N.Sc. & A.I. Ahmad-Ph.D

Med. Journal Cairo University

اسم المجلة أو الدورية

Vol. 78 / No. 2 / 63 - 73 / September 2010

تاريخ النشر

Effect of Implementing Safety Education Program on the exposure to Agricultural Work Hazards Among Preparatory School Pupils

عنوان البحث

Farm labour is a major cause of morbidity and mortality among children, since they face a wide range of health and safety risks. Children have the right to be protected from unsafe or unhealthy work and work environments, and they require higher standards of protection than adults do. Personal protective equipment, when carefully selected, used and cared for, is a vital element of good practice in agricultural tasks and can minimize or eliminate a possible hazard. The study aimed to identify the Effect of implementing safety education program on the exposure to agricultural work hazards among preparatory school pupils.

ملخص البحث

The study was carried out on three preparatory schools in El Mansoura rural areas where the agricultural work is the main occupation of their school pupils, all pupils who work in agriculture and enrolled in the second preparatory classes for the academic year 2006 - 2007 were listed and included in the study, the sample composed of 101 working pupils. Three tools were designed and used to collect the relevant data from the pupils. The first part includes; socio-demographic data such as; age, sex, and socioeconomic status, occupational data such as; age at start work, different types of hazards and safety measures used in the work place.

Second tool is a knowledge test for pupils about child labor law, agricultural hazards, diseases, and safety measures used. The third tool is a field observation checklist, which was developed to assess the farm environment; nature of work performed by children, period of rest, availability and use of safety measures. Results of the present study revealed that working pupils who included in this study had insufficient knowledge, and practice regarding to child labor law, work hazards, and using of safety measures. The implemented safety education program showed a significant impact; as there was a remarkable increase in the pupils' knowledge about child labor law and rights, work hazards, and safety measures. After three months of implementation of the program the pupils knowledge was declined but still higher than before the program regarding the mentioned items. Furthermore; the pupils' practice, was improved regarding the exposure to work hazards, and using personal safety measures.

Key words: Child labor - Agricultural hazards - Occupational safety measures - Safety education program.

Eastern Mediterranean Health Journal

اسم المجلة أو الدورية

Vol. 16 / No. 11 / November 2010

تاريخ النشر

Activity Patterns of Residents in Homes for the Elderly in Alexandria / Egypt

عنوان البحث

To identify activity patterns of residents in homes for the elderly in Alexandria, we carried out a study on 188 elderly persons in 4 homes (2 governmental and 2 private). Participants were interviewed individually using a structured interview schedule. Each home was visited daily for 1 week in order to assess the type of activities provided and the participation. Performance of activities was affected by health status, functional ability, lifestyle pattern (including individual practices and personal choices related to health and health risk) and type of home. Private homes, having more resources available, particularly financial resources, tended to involve their residents in physical and social activities more than governmental ones. The majority of the residents tended to be inactive.

ملخص البحث

Cellular Immunology

اسم المجلة أو الدورية

2011

تاريخ النشر

A Redox Microenvironment is Essential for MAPK - Dependent Secretion of Pro - Inflammatory Cytokines: Modulation by Glutathione (GSH / GSSG) Biosynthesis & Equilibrium in the Alveolar Epithelium

عنوان البحث

The characterization of oxidant (glutathione) - dependent regulation of MAPK^{p38/RK} - mediated TNF- α secretion was undertaken in vitro, and the ramifications of the influence of a redox microenvironment were unraveled.

ملخص البحث



Intermittent exposure of alveolar epithelial cells (FATEII) to LPS (endotoxin) transiently and temporally induced the expression of MAPK^{p38/RK}. This upregulation was associated with the activation of MAPKAP-K2, manifested by the specific phosphorylation of the downstream heat-shock protein (Hsp)-27. Selective blockading of the MAPK^{p38/RK} pathway using the pyridinyl imidazole SB-203580 abrogated the LPS-dependent release of TNF- α . N-acetyl-L-cysteine (NAC), a precursor of glutathione, reduced TNF- α secretion and increased [GSH]. Conversely, L⁻buthionine-(S,R)-sulfoximine (BSO), an irreversible inhibitor of γ -glutamylcysteine synthetase (γ -GCS), the rate-limiting enzyme in the pathway mediating GSH biosynthesis, augmented the secretion of TNF- α and [GSSG] accumulation. Whereas NAC abrogated the phosphorylation of MAPK^{p38/RK}, BSO reversibly amplified this effect. Furthermore, intermittent exposure of FATEII cells to the exogenous oxidants X/XO and H₂O₂ upregulated the secretion of pro-inflammatory cytokines IL-1 β , IL-6 and TNF- α ; this upregulation was correlated with increasing activity of key glutathione-related enzymes, closely involved with maintaining the cyclic GSH/GSSG equilibrium. These results indicate that a redox microenvironment plays a major role in regulating MAPK-dependent production of cytokines in the alveolar epithelium.

To compare the causes, types, and applied conflict resolutions strategies among nursing students at Ain-Shams University in Egypt and Beirut Arab University in Lebanon. Methods: Design: This comparative cross-sectional study was conducted on a convenience sample of 202 Egyptian and 75 Lebanese nursing students during the academic year 2009 / 2010. Data collection was through a self-administered form including a questionnaire for conflict causes (Cronbach alpha coefficient=0.955) and the conflict strategies inventory (Cronbach alpha coefficient=0.829). Findings: Time pressure was the most common cause of conflict among Egyptian (42.6%) and Lebanese (42.7%) students, and the intra-person type was the most prevalent among them, 32.2% and 17.3%, respectively. Egyptians had more use of accommodating ($p=0.02$), collaborating ($p=0.006$), competing ($p=0.007$), and avoiding ($p=0.006$) strategies. The competing, compromising, and avoiding strategies had weak positive statistically significant correlations with all types of conflict in the Egyptian sample, the strongest being between compromising and inter-person type ($r=0.394$). Among Lebanese, a weak negative statistically significant correlation was found between competing and inter-person type ($r=-0.250$). Conclusion: The study provides preliminary evidence of a possible influence of culture and ethnicity on the causes and types of conflict, and the resolution strategies used. Further research is needed in this area, preferably comparing more widely different cultures. Clinical relevance: Cultural factors and ethnic differences should be considered in conflict resolution training programs, particularly in multi-ethnic communities

رابعاً | المشروعات البحثية الممولة محلياً ودولياً

١. المشروعات البحثية على المستوى المحلي

القسم: التغذية والمختبرات الطبية

١/١ إسم عضو هيئة التدريس: أ. د. فكرات الصحن – ود. جون حداد

Hypertension & Correlational Obesity Biomarkers Among Academic Students in Lebanon

عنوان المشروع البحثي

With the significant rise in obesity in the last decade comes a corresponding increase in the prevalence of hypertension. Almost 29 percent of the population is hypertensive (having a blood pressure (BP) greater than 140 / 90 mmHg or using hypertensive medications). The relationship between obesity and BP appears to be linear and exists throughout the non-obese range. But the strength of the association of obesity with hypertension varies among different racial and ethnic groups. Generally, risk estimates suggest that approximately 75 and 65 percent of the cases of hypertension in men and women, respectively, are directly attributable to an overweight condition and obesity. It is important, thus, to recognize that long-duration obesity does not appear necessary to elevate BP, as demonstrated by obesity in children without a condition of hypertension. Therefore, rather than a special case, obesity hypertension should be considered the most common form of hypertension due to unknown reasons.

ملخص عن المشروع البحثي

Many but not all studies suggest that abdominal adiposity, or the commonly known "beer gut", is more closely associated with high BP rather than overall obesity. Obese individuals with elevated intra-abdominal (visceral) fat demonstrate a clustering of coronary heart disease risk factors (i.e., the metabolic syndrome). Heretofore, medical researchers believed the accumulation of visceral fat is the central feature of this syndrome. However, recent evidence favors a role for ectopic or inappropriate fat storage as a cause of the metabolic syndrome. In this regard, both the accumulation of visceral fat and ectopic fat storage in a number of tissues and organs may be important in the cause and consequences of obesity hypertension.

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من المشروع

