



السيرة الذاتية

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نقل الى جامعة البصرة / كلية التربية بتاريخ ١٩٨٧/١١/٣٠ وحصل على لقب مدرس مساعد

نقل الى المعهد التقني / السماوة بتاريخ ١٩٩٢/٩/٢

نال شهادة الدكتوراه من كلية العلوم / الجامعة المستنصرية بتاريخ ١٩٩٩/٨/٢١

نال اللقب العلمي (مدرس) بتاريخ ١٩٩٩/٩/٢٦

رئيس قسم صحة المجتمع / المعهد التقني في السماوة بتاريخ ٢٠٠٢/٢/٥

نقل الى كلية العلوم / جامعة المثنى بتاريخ ٢٠٠٢/١٠/٢٥

رئيس قسم الكيمياء / كلية العلوم بتاريخ ٢٠٠٢/١١/١٨

معاون العميد للشؤون الإدارية/كلية العلوم بتاريخ ٢٠٠٨/٣/٢٣

نال اللقب العلمي (أستاذ مساعد) بتاريخ ٢٠٠٨/٨/١٤

نال اللقب العلمي (أستاذ) في ٢٠١٨

عميد كلية العلوم/ جامعة المثنى بتاريخ ٢٠٠٩/٧/١

عميد كلية التربية للعلوم الصرفة بتاريخ ٢٠١٥/٢/١٧

أهم الوظائف الادارية التي شغلها

عضو مجلس جامعة المثنى وامين مجلس الجامعة منذ بدأ تأسيس الجامعة

عضو مجلس الجودة والاعتمادية في جامعة المثنى

رئيس لجنة الترفيعات المركزية في جامعة المثنى

رئيس قسم الكيمياء – معاون العميد الإداري – عميد كلية العلوم وكالة

رئيس اللجنة العلمية والدراسات العليا في كلية العلوم

رئيس لجنة صندوق التعليم العالي في كلية العلوم

رئيس اللجنة الامتحانية المركزية أو الفرعية في كلية العلوم منذ بدأ التأسيس

رئيس مجلس إدارة المكتب الاستشاري والفني في كلية العلوم

النشاطات العلمية والبحوث

أشرف على خمسة رسائل ماجستير لطلبة الدراسات العليا في كلية العلوم/جامعة المثنى وطالب دكتوراه في كلية العلوم

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عضو لجان مناقشة الى العديد من رسائل الماجستير والدكتوراه لطلبة جامعات البصرة وذو قار والمثنى وبابل

عدد البحوث العلمية المنشورة في مجلات معتمدة احدى وعشرين بحثا

المؤتمرات العلمية المشارك بها

عضو اللجنة التحضيرية للمؤتمر العلمي الأول في كلية العلوم / جامعة المثنى عام ٢٠٠٧

رئيس اللجنة التحضيرية للمؤتمر العلمي التخصصي الثاني في كلية العلوم/ جامعة المثنى عام ٢٠١٠

رئيس اللجنة التحضيرية للمؤتمر العلمي التخصصي الثالث في كلية العلوم/ جامعة المثنى عام ٢٠١٢

مشارك في المؤتمر الدولي الأول لأبحاث السرطان وأمراض الدم /كلية الطب / جامعة المثنى عام ٢٠١٦

مشارك في المؤتمر العلمي التخصصي / جامعة ميسان عام ٢٠١٣
مشارك في المؤتمر العلمي التخصصي في كلية العلوم / جامعة ذي قار عام ٢٠١٠
مشارك في المؤتمر العلمي الثاني في كلية التربية / جامعة المثنى عام ٢٠٠٨
مشارك في المؤتمر العلمي الخامس في جامعة القادسية عام ٢٠٠٥
مشارك في المؤتمر العلمي الأول في كلية التربية / جامعة المثنى عام ٢٠٠٢
مشارك في ندوة مركز علوم البحار/ جامعة البصرة لمياه خور الزبير والمسطحات المائية المجاورة عام ١٩٩١
مشارك في المؤتمر الدولي السادس لبحوث وتكنولوجيا الطب الشرعي ١٩١٧ / هوستن / الولايات المتحدة الأمريكية

الخبرات والمهارات الأخرى

تدريس طلبة الدراسات الأولية في كلية التربية / جامعة البصرة ، المعهد التقني / السماوة ، كلية العلوم / جامعة المثنى منذ عام ١٩٨٧.
تدريس طلبة الدراسات العليا في كليتي العلوم والزراعة/ جامعة المثنى منذ عام ٢٠٠٨.
تأسيس قسم صحة المجتمع / المعد التقني / السماوة عام ٢٠٠٠.
تأسيس قسم الكيمياء في كلية العلوم / جامعة المثنى عام ٢٠٠٢.
رئيس هيئة تحرير مجلة المثنى للعلوم الصرفة
تأسيس أمانة مجلس جامعة المثنى عام ٢٠٠٧.
استشاري في وزارة الصناعة والمعادن / معمل سمنت المثنى عام ٢٠٠١.
عضو لجنة دراسة استثمار معامل السمنت في وزارة الصناعة والمعادن عام ٢٠٠٧.
عضو لجنة مكافحة السرطان والتدخين في وزارة الصحة / مديرية صحة المثنى عام ٢٠٠٢.

كتب الشكر والتقدير

شكر وتقدير من معالي وزير التعليم العالي و البحث العلمي مع درع الوزارة بتاريخ ٢٠٠٩/٥/٥ (جهود قيمة).
شكر وتقدير من مجلس النواب/لجنة التعليم العالي والبحث العلمي بتاريخ ٢٠١٥ (انجاز العملية الامتحانية).
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شكر وتقدير من السيد مساعد رئيس جامعة المثنى للشؤون العلمية بتاريخ ٢٠١٦/١/٧ (نشر بحوث في مجلات عالمية).
شكر وتقدير من السيد عميد كلية العلوم/جامعة المثنى بتاريخ ٢٠٠٨/٦/٤ (جهود قيمة).
شكر وتقدير من السيد عميد كلية العلوم/جامعة البصرة بتاريخ ٢٠٠٩/٦/٢٨ (مشاركة في لجنة مناقشة) .
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شكر وتقدير من السيد عميد كلية العلوم/جامعة بابل (مشاركة في لجنة مناقشة).
شكر وتقدير من السيد محافظ المثنى بتاريخ 2013 تتمين جهود للعمل في جامعة المثنى.
شكر وتقدير من السيد رئيس مجلس محافظة المثنى بتاريخ ٢٠٠٨ (انتهاء الدورة الثانية لمجلس المحافظة).
شكر وتقدير من السيد مدير عام مكتب انتخابات محافظة المثنى بتاريخ ٢٠٠٩/٣/٢ (مناسبة انجاح العملية الانتخابية).

Year	Vol.	Journal	Research Title	No.
2016	Vol 3 (3)	Eur. J.of Forensic Sciences	Mitochondrial DNA Markers in Arabic Iraqi Population	1
2015	Vol. 4 (12)	Int. J. of Science and Research	Mitochondrial DNA Haplogroups Observed in Iraqi Population	2
2015	Vol.2 (2)	TOFIQ J. of Medical Sciences	Study of Serum Oxidant-Antioxidants Status in Adult Bronchial Asthmatics	3
2016	Vol.3 (6)	Int. J. Curr. Res. Biosci. Plant Biol.	A Study of some Biochemical Parameters and ABCA1 Gene Polymorphism for Type-2-Diabetes Mellitus Patients	4
2013	Vol. 4 (1)	Int. J. Res. Pharm. Biomed. Science	Study of Serum Oxidant-Antioxidants Status in Patients With Chronic Renal Failure	5
2011	Vol.16	J. of al-Qadisiyah for pure Science	Correlation Study of the Biological Activity of Sulfa Drugs and Theoretical Calculation NMR Spectra of the Parent Anilines	6
2011	Vol. 2 (4)	Uruk	Study of some physical and chemical characteristics for drinking water in Al-Samawa City	7
2008	Vol. 13 (2)	J. of Al-Qadisiyah for pure Science	Thermodynamic Study of the Adsorption of Methylene Blue and Neutral Red Dyes on the Surface of Kaolinite	8
1997	Vol.15 (1)	Basrah J. of Science	Phytochemical investigation on Xerophytes from Basrah	9
2011	Vol. 7 (11)	Al-Qadisiya Medical J.	Estimation of Ceraluplasmin and Alpha-1 Antitrypsin levels among hepatitis patients in acute and chronic state	10
2015	Vol. 23 (2)	J.of Babylon University	Relationship between Leptin and Thyroid Hormones in Type 2 Diabetes Mellitus Patients	11
2006	Vol. 11 (1)	J.of Al-Qadisiyah for pure Science	Synthesis of some Saccharine Derivatives	12
2006	Vol. 11	J. of Al-Qadisiyah for pure Science	Study of limitation of some fundamental pollutants in the air of Samawa City	13
1986	Vol.27 (1-2)	Iraqi J. of Science	Reactions of Primary Amines with O-Sulphobenzoic Cyclic Anhydride and Subsequent Dehydration of the Products	14
1991	Vol. 15 (1)	Basrah J. of Science	Estimation of phosphate in Basrah water by Flow Injection Analysis	15

2012	Vol. 11 (4)	Basrah J. of Veterinary research	Effect of leaves of <i>Thymus vulgaris</i> extracts on parasite <i>Entamoeba histolytica</i> in experimentally infected mice	16
2012	Vol. 1 (1)	AL-Muthanna J. of Pure Science	Study the infection rate by <i>Trichodina</i> _ <i>domerguei</i> and <i>Neoechinorhynchus iraqensis</i> in the fish <i>Liza abu</i> in Branch of Euphrates River and treatment it by the some chemicals	17
2013	Vol. 1 (1)	AL-Muthanna J. of Pure Science	Effect of plant extracts(epicarp and pith of <i>Punicagranatum</i>) on parasite moebic dysentery(<i>Entamoeba histolytica</i>)in experimentally infected mice	18
2012	Vol.1 (1)	AL-Muthanna J. of Pure Science	A Study of γ - Radiation effects on (Styrene-Butadiene Rubber)(SBR)used for increasing the Pumping Efficiency of Crude Oil	19
2016	Vol.3 (2)	AL-Muthanna J. of Pure Science	Mutation Heteroplasmy of One Nucleotide in Iraq Population	20
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2018	Vol. 18 (1)	Biochem. Cell. Arch	Association Between TNF-a 308 (G/A) Gene Polymorphism and Type 2 Diabetes Mellitus and Biochemical Factors in Al-Muthanna Province Population, Iraq	

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Ms.C Thesis

REACTION OF PRIMARY AROMATIC AMINES WITH O-SULPHOBENZOIC ACID CYCLIC ANHYDRIDE

Summary

Reaction of o-sulfobenzoic acid cyclic anhydride (16) with primary amines produced salts of 2-[(aryl amino)-carbonyl] benzene sulfonic acid⁽⁶¹⁾(66) and not the salts of 2-[(arylamino) sulfonyl] benzoic acid(65).

Contrary to earlier reports. It seems that the steric hindrance caused by the two oxygen atoms of the sulfone group prevent the attack of the nucleophilic amines on the sulfur atom despite the fact that sulfur atom is more polarized than the carbonyl in these compounds.

Attempts to prepare 2-[(aryl amino)- carbonyl] benzene sulfonic acid were not successful. For the reaction of one mole of the anhydride(16) with one mole or two moles or more of the primary arylamines, gave the salts of the corresponding acids(73) in each case.

The salts obtained from the reaction of one mole of the amine with one mole of the anhydride (16) at 5-10°C were not pure. However, when two moles or more of the amine were refluxed with one mole of the anhydride(16) pure salts(73) were obtained.

That the sulfonate salts of the type(73) were the products of these reactions and not the corresponding acids, indicate that the initially formed acids(66) are extremely strong acids. Once they are formed they combine with the rest of the amine to form the salts(73).

Emmiet Ried⁽¹⁶⁾ claimed the preparation of 2-[(substituted amino) sulfonyl] benzoic acids(65) by the hydrolysis of N- substituted saccharin in the dioxane. However, with the exception of the report by lyer and Muther^(58,59), no other report was found in the literature about preparation of 2-[(substituted amino) carbonyl]- benzene sulfonic acid(66).

Lyer and Muther(58,59)reported the preparation of the acids(66) from the reaction of the anhydride (16) with the amine in dioxane. Repeating these reactions during these studies gave the corresponding salts(73) and not the claimed acids (66). It is thus believed that the obtained salts have the structure (73) and not the structure(77).

Using of NMR or infrared spectroscopy to differentiate between structures(73) and(77) were not conclusive.

Attempts were made to prepare substituted saccharin from the prepared salts(73) using acetic anhydride-sodium acetate mixture as the dehydrating agent. However, the products were substituted acetanilides and not the corresponding substituted saccharin. A mechanism has been proposed to rationalize this reaction on page(125). On the other hand treatment of the salts(73) with thionyl chloride gave N-substituted saccharin in moderate yields.

Reaction of trifluoroacetic anhydride with salts like(73) did not form substituted isosaccharin nor the corresponding saccharin. A ratio of one mole of trifluoroacetic anhydride and one mole of the salts -(73) were allowed to react, forming trifluoroace anilide as the main product. N,N'-dicyclohexylcarbodiimide(DCC), a powerful dehydrating agent used to prepare isoimides from amic acids, was allowed to react with salt(73) at room temperature. Dicyclohexylurea(DCU) was isolated from the reaction mixture indicating that a reaction took place. The products in the organic solvent(dichloro methane) could not be purified completely from DCU .

The product which was believed to be N-substituted isosaccharin showed the presence of some DCU in its NMR spectrum. It seems that preparation of substituted isosaccharin using DCC requires further investigation and effective methods for purifying the product from DCU.

Ph.D Thesis

KINETIC BEHAVIOR OF CRUDE AND PURIFIED SOLUBLE AND MEMBRANE-BOUND ACETYLCHOLINESTERASE

ABSTRACT

1. The distribution of the extracted rabbit brain AChE in the soluble and m-bound fractions was examined and found in percent of 18.2 and 64% of the enzyme activity respectively.
2. $(\text{NH}_4)_2\text{SO}_4$ fractionation precipitated the two fractions at 30-70% and 10-60% saturation of $(\text{NH}_4)_2\text{SO}_4$ with fold purification at 2.7 and 3.2, respectively.
3. Both forms were partially purified by ion exchange chromatography on DEAE-Sepharose CL-6B. Salt elution revealed single form for each fraction with 21.5 and 25.0 fold purification respectively.
4. The subsequent gel filtration by calibrated Sepharose 4-B revealed only one homogeneous symmetrical peak with calculated M_r of 479875d and Stoke's radius of 7nm for the soluble enzyme. It revealed two major peaks and one major zone of M_r 495838d, 422451d and 231592d and Stoke's radii of 7.16nm, 6.29nm, and 3.30nm for the m-bound form. The overall yields were 14.4 and 13.8 with specific activities of 42.265 and 60.18 $\mu\text{mole/ml.min}$. per mg of protein. The purification was 522 and 743 fold, respectively.
5. The stability of enzyme during storage was studied at -20°C over 5 months.
6. Several specific AChE inhibitors were synthesized. The attempts of coupling these ligands covalently to the activated Sepharose 4B in order to prepare enzyme affinity gel were unsuccessful.
7. Isoelectric focusing with pH 3.5-10 separated each of the two forms into three species with pI of 4.55, 4.85 and 5.55 for the soluble and 6.14, 6.4 and 6.84 for the m-bound enzyme.
8. The purified forms were also analyzed by 10% SDS-PAGE in the presence of reducing agent. Staining for protein revealed main bands at 66069d and 75858d for the soluble and m-bound enzyme, respectively.
9. The individual isoenzymes exhibited significant difference in properties including K_m , pH optima, and V_{max} , while optimum substrate and temperature were examined without finding any significant difference between the forms before and after purification.
10. Both soluble and m-bound fractions gave Arrhenius plot with a discontinuity in the activation energy around $19-22^\circ\text{C}$ for the m-bound form only.
11. The kinetic studies showed competitive inhibition of AChE by physostigmin (VI), noncompetitive inhibition by the cationic inhibitors(I and II) and mixed-type by the pepazine derivative(VIII). The inhibition degree of enzyme to each inhibitor was determined.

12. N-methyl-3-aminopyridinium iodide(V) at low concentrations(10^{-4} - 5×10^{-4} M) behaved as AChE activator, as well as a reactivator to the inhibited enzyme, while the higher concentration(10^{-2} - 5×10^{-2} M) acted as weak inhibitor.
13. Isoxazole derivative(XI) behaved as reactivator to the inhibited AChE markedly, while pyrazole(VII) and its derivative(X) caused increase in the inhibition of enzyme.

عناوين البحوث المنشورة و خلاصاتها

European Journal of Forensic Sciences , Vol. 3 , Issue 3 (2016)

Mitochondrial DNA markers in Arabic Iraqi population

Nihad A.M. Al-Rashedi, Mohammed A. Jebor, Talib A.H. Mousa

Abstract

Background: The D-loop region mitochondrial DNA (mtDNA) typing is an excellent tool for forensic applications because has universal primers exist that can be applied to almost any unknown sample and generate a result from D-loop region variations are much concentrated in these regions. The aim of the present study was to determine the variations of D-loop region using Sanger DNA sequencing techniques in Arabic Iraqi population. **Materials and Methods:** mtDNA isolation for used as a template to overlapping extended primers to generates four partially overlapping PCR amplicons on the mtDNA D-loop hypervariable regions, which is ready to direct DNA sequencing. Results: This study record 147 polymorphic positions found within the D-loop of the unrelated 100 Arab Iraqi mtDNA samples. The frequency of transitional polymorphic nucleotides were observed highest at positions 263, 73 and 16519 with 0.82, 0.66 and 0.51, respectively, as well as, frequency of insertion C is 0.71 and 0.5 at positions 315 and 309, respectively. The two samples were bearing insertion of double cytosine at positions 315 and 309, respectively. One point mutation heteroplasmy was detected located at position 16233. A statistical estimate this population showed the random match probability and the genetic diversity of 0.0294% and 99.8%, respectively. **Conclusion:** The variations of mtDNA D-loop region in this study that included point mutation, insertion, and heteroplasmy that consider as added the data in forensic genetics scope in Arabic Iraqi population.

Mitochondrial DNA Haplogroups Observed in Iraqi Population

Nihad A.M. Al-Rashedi¹, Mohammed A. Jebor, Talib AH Mousa, Ali H. Al-Saadi

Abstract:

Mitochondrial DNA hypervariable regions I and II of control region were sequenced from 100 random healthy unrelated individuals of three sequential generations belong to the Arab ethnic of Iraqi population. The aim of this study was to detection the mtDNA haplotypes and classifying it into mtDNA haplogroups will be useful in forensic genetics applications and determining the Iraqi population history. The sequence variation within D-loop control region were analyzed the composition of haplogroups that showed high frequency of haplogroups U, H, J,M, D,T and N (18%, 14%,10%, 9%, 7%, 7% and 7%, respectively, moderate frequency of haplogroups L and I was (4%) and B, A, R and K (2%), and low frequency of haplogroup pre-HV (1%) . This study was indicated lack of V, P, Y, X, O, Z, Q, G, E and C haplogroups.

TOFIQ Journal of Medical Sciences, TJMS, Vol. 2, Issue 2, (2015)

STUDY OF SERUM OXIDANT-ANTIOXIDANTS STATUS IN ADULT BRONCHIAL ASTHMATICS

Talib AH Mousa

Abstract

Asthma is a chronic inflammatory airway disorder associated with recruitment of inflammatory cells. Asthmatic patients produce reactive oxygen species damaging the antioxidant defense system and forming a state of oxidative stress in asthmatics. The present study included 50 patients [25 males and 25 females] and 50 supposed healthy subjects (control) [25 males and 25 females]. The results show a presence of a significant increase ($p \leq 0.05$) in malondialdehyde (MDA) and

ceruloplasmin (Cp) levels in both sexes of bronchial asthmatic (BA) patients in contrast with the control group. On the other hand, transferrin (Tf) showed a significant decrease ($p \leq 0.05$) in male BA patients compared with the control group, whereas, serum Tf levels demonstrated a non-significant decrease among the female BA patients in comparison with the control group. Correlation coefficient (r) test is used to describe the association between lipid peroxidation products and different antioxidants. This study revealed a significant negative correlation between MDA and the levels of Cp in both male and female BA patients ($r = -0.74$ and $r = -0.37$ respectively). Similarly, there was a significant negative correlation between MDA and Tf in male patients ($r = -0.89$), whereas the comparison between MDA with Tf revealed non-significant correlation in female BA patients. Asthma leads to a considerable an imbalance between antioxidants and oxidants. Both sexes of BA patients undergo an extraordinary degree of reactive oxygen species (ROS) development triggering considerable oxidative stress indicated by high levels of lipid peroxidation marker MDA and antioxidant Cp and low level of the antioxidant Tf in both male and female BA patients.

Int. J. Curr. Res. Biosci. Plant Biol. Vol. 3 , Number 6 (2016)

A Study of some Biochemical Parameters and ABCA1 Gene Polymorphism for Type-2-Diabetes Mellitus Patients

Sheereehan A. Mahdi and Talib AH Mousa

Abstract

The present study was undertaken to detect the possible association of V825I polymorphism in the ABCA1 gene and several environmental factors with serum lipid levels among 100 T2DM patients and 50 healthy control subjects. Each patients and controls are classified into three groups according to their BMI (18.5-24.9 normal, 25-29.9 over weight and ≥ 30 kg/m² obese), and also classified into three groups according to their ages (40-49.9 G1, 50-59.9 G2, ≥ 60 year G3). The genomic DNA extraction to PCR and PCR-RFLP assay was detected on gel electrophoresis. PCR was carried out to amplify 525bp fragment of ABCA1 gene contained V825I polymorphic position by using restriction enzyme Taq1. The presence of the cutting site indicates the A allele, while its absence indicates the G allele. Thus, the GG genotype indicates the absence of the site (band at 525 bp), GA genotype indicates the absence and presence of the site (bands at 525, 302 and 223bp) and AA genotype indicates the presence of the site (bands at 302 and 223 bp). The present study found that the frequency of GG genotype and G allele are higher in healthy controls compared to patients, converse to AA genotype which was higher in patients compared to healthy controls. The data also shows significant relationship between ABCA1 gene polymorphism with each of TG and VLDL ($p < 0.01$ for each). Our results found that the frequency of GG genotype for overweight and obese and frequency of AA for obese are significantly higher ($p < 0.05$) in patients compared to healthy controls. The results confirmed that the frequency of GG genotype is significantly higher ($p < 0.01$) in healthy compared to patients according to the age of more than 50 year only. The results indicate the highly significant ($p < 0.01$) in frequency of GG genotype, higher in female patients compared to healthy controls. We have found the presence of significant relationship between ABCA1 gene polymorphism and serum levels of TG and VLD in patients. The frequency of A allele is lower than that of G allele in each male and female groups. The presence of significant differences of GG genotype with the advancement of age in patients group was observed. The results confirmed that G allele may be a protective factor against diabetes mellitus.

Study of Serum Oxidant-Antioxidants Status in Patients With Chronic Renal Failure

Marwa Mohammed Ali AL-karawyi, Talib AH Mousa and Raid M Hannun Al-Salih

Abstract

Renal failure is a situation in which kidney fails to function adequately. The aim of this study was to investigate changes relevant to oxidative stress in CRF patient, using the lipid peroxidation marker, Malondialdehyde (MDA) and preventative antioxidants ceruloplasmin (Cp), transferrin (Tf) and albumin (Alb), in serum of

patients with chronic renal failure. Blood samples were obtained from (100) patients with [chronic renal failure] undergoing haemodialysis (HD) just before and after the dialysis process as well as (35) healthy subjects as a control group. The patients divided into four groups according to type of accompanied diseases (Non): without accompanied disease, (DM): with Diabetes Mellitus, (HT): with hypertension, (DM+HT): with Diabetes Mellitus and hyper tension. **Results:** The results show a presence of a significant increase in MDA, Ceruloplasmin and transferring levels in all groups of patients in pre-HD in comparison with control group. But, Albumin showed a significant decrease in all groups of patients pre- and post-HD in comparison with control group. Also, MDA and transferrin showed a significant increase in all patients groups in post-HD in comparison with control group. while, CP showed insignificant increase in all groups of patients in post-HD as compared to the control, with the exception of HT patients group that showed a significant increase as compared to the control. MDA was decrease in the post dialysis groups when compared with predialysis is, with the exception of HT+DM patients group that showed insignificant decrease in MDA level in the post dialysis

groups when compared with predialysis. But, albumin showed insignificant increase in patients groups in the post dialysis groups when compared with predialysis .ceruloplasmin showed insignificant decrease in the post dialysis groups when compared with predialysis, with the exception of HT+DM patients group that showed significant decrease in CP level in the post dialysis groups when compared with predialysis. Transferrin showed significant increase in Non and HT patients groups when compared between them before and after haemodialysis. While, serum transferrin levels demonstrated no significant differences in DM and HT+DM patients group when compared between them

before and after haemodialysis. The correlation coefficient (r) test is used to describe the association between lipid peroxidation products and different antioxidants. MDA was negatively correlated with some serum antioxidant (Tf and Alb), while correlated with Cp levels positively assuring their function as antioxidant.

J. of al-Qadisiyah for pure Science, Vol.16, Issue 4 (2011)

Correlation Study of the Biological Activity of Sulfa Drugs and Theoretical Calculation NMR Spectra of the Parent Anilines

Bahjat A. Saeed and Talib A.H. Mousa

Abstract

Isotropic ^1H , ^{13}C and ^{14}N nuclear magnetic shielding constants of anilines that used to synthesize sulfa drugs were calculated. The geometry of each compound has been optimized using 6-31G(d,p) and B31yp/6-31G(d,p) bases set at levels HF and DFT. The optimized geometries were used to estimate the chemical shifts which then correlated with biological activity of the drugs against bacteria.

Uruk, Vol.2 (4) 2011

Study of some physical and chemical characteristics for drinking water in Al-Samawa City

Talib AH Mousa, Niran A. Thamer, Ibtehal A. AL-Mnem

Abstract

This study attempt to estimate the efficiency of water sample that collected from three stations along Rumaitha city for the period Jan 2009 to Jun 2009. Parameters determined were hardness, calcium, magnesium, chloride, turbidity,

sodium and potassium. The results showed that the range of pH was tend to alkalinity over all the months except neutral pH during Jun of this year. Also, hardness of water had high level according to international standards . Each of magnesium, sodium potassium and turbidity of both stations for drinking water were ranging within values of (WHO) reports, while electrical conductivity, total dissolved solids and chlorides had high level comparative with international standards.

J. of Al-Qadisiyah for pure Science, Vol. 13 , Issue 2 (2016)

Thermodynamic Study of the Adsorption of Methylene Blue and Neutral Red Dyes on the Surface of Kaolinite

خولة كاني جاسم – طالب عبدالحسين موسى – جاسم محمد شامار

Abstract

This study is concerned with the adsorption in solution of neutral red and methylen blue on the surface of kaolin clays . In this study a visible spectrophotometric technique has been used to study the adsorption isotherms. The result obtained from this study has indicated that increase of adsorption capacity is proportional with the increase of equilibrium concentration. Adsorption studies on kaolin at different pH values showed an increase in the following order according to the pH of solution for Neutral Red : $\text{pH } 3 > 7 > 10$ While for Methylen blue showed increase in the following order : $\text{pH } 7 > 10 > 3$ Adsorption on kaolin surface were examined as function of temperature (in the range (303 - 323) K°. The extent of adsorption was found to have no increase regarding the increasing temperature.

Phytochemical investigation on Xerophytes from Basrah

Riad S. Haddad, Kadim h. Zwain and Talib Abdul Husain

ABSTRACT

Leaves of fourteen xerophytes namely *Carduus pycnocephalus*, *Rhanterium epapposum*, *Ifloga spicata*, *Fagonia bruguieri*, *Zygophyllum propinquum*, *Peganum harmala*, *Heliotropium bacciferum*, *Moltkiopsis ciliata*, *Bassia eriophora*, *Suaeda vermiculata*, *Gypsophila capillaris*, *Spergularia diandra*, *Trigonella anguina* and *Astragalus spinosus* from the desert, south of Basrah were studied in the laboratory with particular interest in monosaccharides and flavenoids, aiming to obtain phytochemical characters that might add weight to their classification, at the family level, based on their morphological features. Glucose, galactose and arabinose were detected in most of samples. Some flavonols and flavones were also detected in many of the samples. The presence of these chemicals had limited taxonomical value.

Al-Qadisiaya Medical J. Vol. 7(11), 2011

Estimation of Ceraluplasmin(CER) and Alpha- 1 Antitrypsin(AAT) levels among hepatitis patients in acute and chronic state

Raheem Tuama , Shakir Hamaad , Talib AH Mousa and Abdul Hussien M.K. Aljebory

Abstract

Hepatitis Viruses is a common cause of viral hepatitis, it has a wide distribution among peoples, it has more than five common types : Hepatitis A , B , C , D, E. The level of Ceraluplasmin

and alpha- 1 antitrypsin differences in acute and chronic hepatitis, it may be normal or mild increased in acute hepatitis while is decreased in chronic hepatitis patients . And the aim of this study to find out the relation ship between the frequency of hepatitis and the concentration of immunochemical protein (such as Ceraluplasmin and Alpha -1 antitrypsin) present in patient during the acute and chronic period of hepatitis infections .

Total number of 36 patients with hepatitis (B) and 30 patients with hepatitis (C) viral infection with age range (22- 55 years) were enrolled in this study. Patients who had liver cirrhoses was excluded in this study. With a total number of 24 age matched apparently healthy control group was taken to be compared with case study . Assessment of serum levels of Ceraluplasmin and α -1 Antitrypsin were done by Single Radial Immunodiffusion Assay to both case study and control group in Babylon public health laboratory from June to September 2007. The our result show no significant (N.S) increased in level of alph-1 Antitrypsin among acute patient in both type (B and C) While there is a highly significance (H.S.)result for chronic patients also in both type (B and C). Ceraluplasmin level show (N.S.) decreased among acute patient while there is (H.S.) decreased in both group of patients (B and C) after compared with a control samples . This result with agreement with many universal result.

Journal of Babylon University/Pure and Applied Sciences. Vol.23, No.(2) 2015

Relationship Between Leptin and Thyroid Hormones In Type 2 Diabetes Mellitus Patients

Ghena Hamoudi Hussein Alzubaidy, Talib Abdul Hussein AlMusawi, Abdul Hussein Mahdi AlJibouri

ABSTRACT

This study was performed in the Diabetes and Endocrine Center at Al-Husain Teaching Hospital. The patients and control groups were with age ranged between (40-83) years. Study was carried out on 60 patient with type 2 diabetes mellitus (28male and 32 female) and 20 apparently healthy subjects male and 20 female how dealt with as control group. Leptin and thyroid hormones(T3,T4, AND TSH) measurements were carried out using ELISA technique. Both patient and control groups were classified according to obesity, age, and gender . Results

of the present study show that leptin hormone was significantly high in serum of type 2 diabetic patients group compared with control group ($P < 0.001$).also there was a significant gender difference (female more than male) and significant positive correlation with body mass index and body fat . Results also show that TSH hormone and FBS were significantly high($P < 0.000$), while T3and T4 decrease significant($P < 0.000$) in type 2 diabetic patients group and compared with control group.

J.of Al-Qadisiyah for pure Science, Vol. 11 (1), 2006

Synthesis of some Saccharine Derivatives

Kasim M.H. , Talib AH Mousa , Kalid J. Al-adile

Abstruct

In this paper Schiff's bases were prepared by condensation of primary aromatic amines and aromatic aldehydes. It was found that Schiff's bases react with propionyl chloride in refluxing dry benzene to give N- α -chlorobenzylpropanilides , the latter had reacted with saccharine by direct fusion to give N- α -saccharylbenzylpropanilides. The new prepared compounds were identified by melting point and their IR and UV-Vis spectra.

J. of Al-Qadisiyah for pure Science, Vol. 11 (2006)

Study of limitation of some fundamental pollutants in the air of Samawa City

Talib AH Mousa

Abstruct

The mean monthly accumulation of the total suspended particles (TSP) in the air was measured in ($\text{g}/\text{m}^2/\text{month}$) to four position in Samawa City, which are Al-Sader Quar.(I), Al-Resala Quar.(II), The main store of seeds(III) and Al-Gharbi Quar. (IV). The study was performed during a period from January to the end of Desember(2001). The mean monthly accumulation (TSP) for a long year at each position was graduated as follow: (III) $7.545 > \text{(IV)} 7.331 > \text{(II)} 6.202 > 5.461(\text{g}/\text{m}^2/\text{month})$. The higher mean of TSP for all position was observed at April (8.307), but the lower one was observed at November (5.439). The general mean of TSP at that year for all position was $6.635(\text{g}/\text{m}^2/\text{month})$. The study emphasized that the suspended particles had been come from different sources which are Al-Janoob cement company, the effect of wind direction and weather case, in addition to the geographic position of Samawa City at the edge of the western deserted hill.

Iraqi J. of Science, Vol.27 (1-2), 1986

Reactions of Primary Amines with O-Sulphobenzoic Cyclic Anhydride and Subsequent Dehydration of the Products

Thanun M. Pyriada and Talib AH Mousa

Abstract

Reaction of primary amines with o-sulfobenzoic cyclic anhydride resulted in the formation of salts of o-substituted amido benzenesulfonic acid. Salts formed even when one equivalent of the aromatic primary amines or ammonia were allowed to react with the anhydride. Treatment of salts with hot acetic anhydride-sodium acetate mixture gave N-acetylated anilines and non of the cyclization products such as N-substituted saccharines or its isomers. Thionyl chloride however, when allowed to react with the salts yielded N- substituted

saccharines. Trifluoroacetic anhydride reacted similar to acetic anhydride and produced N-(trifluoroacetyl) anilines only. N,N-dicyclohexylcarbodiimide reacted with the salts producing a compound thought to be impure N-arylisosaccharines.

Basrah J. of Science , Vol. 1991

Estimation of phosphate in Basrah water by Flow Injection Analysis

كامل حسين السوداني ، حاتم أحمد جاسم ، طالب عبد الحسين موسى

Abstract

أستخدمت تقنية تحليل الحقن الجرياني (Flow Injection Analysis, FIA) لتقدير الفوسفات في مياه البصرة بالمطياف الضوئي مستندة على تكوين معقد مابين الفوسفات والمولبدنوم بوجود حامض الأسكوربيك.

وجد أن المعيار الخطية للفوسفات (٢,٠-٠,٢٥) مايكروغرام/مل ومعدل انحراف قياس مقداره ١,٠ % . تراوحت تراكيز الفوسفات في العينات المأخوذة من مناطق الدراسة المختلفة بين (٠,٣٢-٠,٩٢) مايكروغرام/مل. كذلك تمت دراسة تأثير المتداخلات المختلفة وبينت حدود تأثير كل منها.

Basrah J. of Science , Vol. 1991

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وجد أن المعيير الخطية للفوسفات (٢٥,٠-٠,٢٥) مايكروغرام/مل ومعدل انحراف قياس مقداره ١,٠%. تراوحت تراكيز الفوسفات في العينات المأخوذة من مناطق الدراسة المختلفة بين (٠,٩٢-٠,٣٢) مايكروغرام/مل. كذلك تمت دراسة تأثير المتداخلات المختلفة وبيئت حدود تأثير كل منها.

AL-Muthanna J. of Pure Science, Vol. 1 (1), 2012

Study the infection rate by *Trichodina _ domerguei* and *Neoechinorhynchus iraqensis* in the fish *Liza Abu* in Branch of Euphrates River and treatment it by the some chemicals

Y.D.Al-Asadiy , Talib AH Mousa and M.M. Husain

Abstract

Through examination of 030 samples of the fresh water fish *Liza abu* obtained from Euphrates River -Al-Syaagh region during the period November 0202 and August 0200, by using gill nuts. As a result of external and internal examinations of fishes *Liza abu* for parasites , only two parasites species were detected the first species *Trichodina domerguei* isolated from gills and the second species *Neoechinorhynchus iraqensis* isolated from intestine. No significant differences were noticed in the percentage incidence of males and females with the above mentioned parasites , the percentage of total parasites infection was (33.33 %). They were *Trichodina domerguei* (02.33 %), *Neoechinorhynchus iraqensis* (33.03 %). The percentage of one species infection was (03.83 %) , while the percentage of two species infection was (9.32 %) . Three chemicals were used to treat *Liza abu* infected with *Trichodina domerguei* , these were :- sodium chloride , formalin and acetic acid. The dip method was used to achieve the treatment course. The exposure of the fishes to (0) ml / l formalin for a period range of (0- 3)

minutes was very effective against *Trichodina domerguei*. The use of (0)ml/l acetic acid for (0) minute was also affective against *Trichodina domerguei* as no harm was done to the fishes. However, it is recommended not to exceed such concentration due to its dangerous effect on fishes. Sodium chloride was affective against trichodina only in concentrations harmful to fishes.

AL-Muthanna J. of Pure Science, Vol.1 (1), 2012

**A Study of γ - Radiation effects on (Styrene-Butadiene Rubber)(SBR)
used for increasing the Pumping Efficiency of Crude Oil**

أ.م.د. عبد الأمير كاظم فرهود - أ.م.د. طالب عبد الحسين موسى – أ.د. محمد حمزة المعموري

Abstract

The gamma ray Irradiated polymer material (Styrene-Butadiene Rubber) (SBR)has been added to the Kirkuk crude oil. The polymer is used for purpose of increasing the pumping efficiency. The polymer is added to the crude oil at the concentration of(20 ppm) with thermal range from (20 to 45 C°).

Many experiments are carried out to determine the best concentration of polymer which satisfies the best pumping of crude oil. It is found at (20 ppm) concentration at(35C°)with radiation dose of (16000) rad.

Accepted in AL-Muthanna J. of Pure Science (2016)

**Mutation Heteroplasmy of One Nucleotide Position in Iraq
population**

Nihad A.M. Al-Rashedi , Mohammed A. Jebor, Talib A.H Mousa, Ali H. Al-Saadi

Abstract

Detectable heteroplasmy can be observed as point heteroplasmy where two DNA bases are observed at the same nucleotide position. The aim of this study is to search on the mtDNA heteroplasmy which may be useful in forensic genetics applications and determining the Iraqi population history. Mitochondrial DNA hypervariable regions I and II of control region were sequenced from 100 random healthy unrelated individuals of three sequential generations belong to the Arab ethnic of Iraqi population. The results showed that point heteroplasmy at position 16233 record haplotype 16233Y 16290T 16319A 16362C 73G 235G 309.1C which classified to haplogroup A4.

Accepted in AL-Muthanna J. of Pure Science (2015)

The influence of regionalization salt on The Thyroid hormones in the carps normal and natural state of Hyperthyroidism

هدى هاشم عبدالرزاق ، أ.م.د. مصطفى مهدي القزاز ، أ.م.د. طالب عبد الحسين موسى

Abstract

This study was carried out under laboratory conditions to determine the impact of salt localization on thyroid hormones in two cases of water (fresh water and salt water by 30% sea water) in the normal circumstances as a control. Thyroxin was used in two concentrations (10 and 25 µg/dL) for the purpose of obtaining the status of hyperthyroidism and to show the impact of localization on thyroid hormones of typical carp fish Common Carp (*Cyprinus carpio* L.). The study included 40 fish with a weight of (100±20g) after adapt

them in the mineral pools before being transported to the aquarium glass treatment. Fish has been divided into three groups (Control Group consisted of fish in fresh water, which contained repeating each repeater 4 fish. The Group localization in salt water concentration of 30% sea water, which contained a repeating each repeater 4 fish and group Hyperthyroidism, which have been treated by thyroid hormones (10 and 25 $\mu\text{g/dL}$), which were represented, first: two groups (10 and 25 p.pb) in fresh water and it was all concentration Duplicate each repeater 4 fish and the second: two groups (10 and 25 p.pb) in the marinade by 30% seawater was each concentration Duplicate each repeater 4 fish). This study involved measurement of serum thyroid hormones of fish and all tests after thirteen days of treatment. The results showed an increase the level of significance ($P < 0.05$) for thyroid hormones in the serum of fish in fresh and salt water, and showed that the values of the hormones in fresh water for the same concentration of hormone used in the treatment are less than it is in salt water as the localization had an impact on the thyroid functions.

We conclude from this study that regionalization salt effect on thyroid hormones in fish natural situation and the state of hyperthyroidism.

