Mustansiriya University

Clamite-13

The harmful effects of chemicals on the environment and human health[2]

Collage of Sciences,
Department of Chemistry

The use of chemicals has become associated with any human activity in all areas of life, and these substances have a negative impact on the human body, whether directly or indirectly,Anywhere in the world, or anywhere in the world. There is no chemical that can be considered completely harmful. Dyeing other chemicals from Qatar stone in Germany during the eighteenth century, which makes you concerned about the uses of chemicals if found anywhere in the world. Tired of it, we started to solve the environment problem in the seventeenth century The quantities and numbers of chemical compounds produced in the nineteenth century, including the residues of steel and iron, lead battery residues and oil refineries, and with them increased the amount of pollutants and harmful substances presented in the environment. The second world increased the production of harmful substances from various sources, such as manufacturing chlorine, pesticides, plastic materials, paints, etc., and spending large sums to clean places from pollutants. Qualifying chemicals, their amazing transfer to living organisms, through your accumulation, and the components of the environment in which (air - water - soil) are present in the body are extremely high in body temperature. What is ammonia among the most pollutants in rivers? Ultraviolet radiation protects the ozone layer, changing the chemical effects n.

An example of heat poisoning or swelling, or equivalent fun. In the end to death. Fertilizers, food additives, medicines and other similar chemicals

Chemicals have become part of our lives and other language activities (fertilizers and food additives). But for our health (medicines and detergents), these substances may reveal that chemical production may be one of the main factors in the economic development of all developed and developed countries. Increased production means an increase in storage processes and the life cycle of the entire chemical, which must be taken into account when assessing its risks and benefits

رابط الجامعة : https://uomustansiriyah.edu.iq
اعداد :
مكان العمل :

The Department of Chemistry has employed many scientific activities, including organizing many lectures, workshops, seminars, discussions and conferences with the competent authorities and various universities to stand and reduce these problems and increase cultural awareness for workers in laboratories, in order to improve the optimal use of chemicals in the interest of both Humans and the environment, which feeds into the development of society and serves man as follows

Research published

Both teachers were able to teach Zainab Hashem and Professor Dr. Abdul Jabbar Khalaf Attia, Professor Dr. Reda Ibrahim Al Bayati, from the Department of Chemistry, and they completed a new research in the pharmaceutical sciences and scientific research. (Domain containers) and tag 1 - Both coaches Zainab Hashem and Professor Dr. Abdul Jabbar Khalaf Attia, Professor Dr. Reda Ibrahim Al Bayati, from the Department of Chemistry, have completed and published new research in J. Research (Domain Containers) and the mark

synthesis of new 1,3-thiazole and 1,3 oxazole from 3- chlorobenzo[b]thiophene and evaluation of anti-bacterial activity"

The study carried out with the participation of professors from the Department of Life Sciences at Al-Mustansiriya University d. Muhammad Faraj Al-Marjani and Raja Hindi Saleh, preparing some of the compounds of thiazole and oxazole and evaluating the anti-bacterial activity of some of them, as all the derivatives of acid chloride were prepared with hydrazine hydrate or ethylene di amine and diagnosing the resulting compounds with FTIR and 1HNMR spectra(1)

2Both teachers were able to do this. Abdel-Jabbar Khalaf Attia from the Department of Chemistry and Professor Dr. Sahar Abdullah, from the Department of Life Sciences at Al-Mustansiriya University, completed and published new research in J. Global Pharma Technology (field containers) and tagged them".Synthesis and Antibacterial Activities of New 2-MercaptoImidazoline-4-one Derivatives"

the research dealt with the preparation of new derivatives of the compound amidazole and the rules of Schiff and pyrazole and pyrimidines and lactam and testing its effectiveness by inhibiting the types of coliform bacteria, as these compounds were prepared by a thiorea interaction with chloro acetyl chloride and diagnosed all using FTIR HNMR1 techniquesThe study concluded that these prepared compounds have good ability to inhibit the growth of coliform bacteriaEscherichia coli, Staphylococcus aurous and Proteus mirabbilisby(2) .

3.Both professors managed a. Dr.. Hassanein Kamel Mahdi and Professor Dr. Falah Tukum, a

forest that has completed new research and published it in the Journal of International Pharmaceutical Technology, within Scopes and label containers

Adenosine Dimenase Estimation in Iraqi Adult Patients with Thalassemia

The research, conducted with the participation of a colleague from the Faculty of Dentistry at Yarmouk University College, Professor Qais Abdul Hamid Al-Qaisi, aims to assess the effectiveness of the adenosine diminase enzyme in patients with moderate anemia called severe thalassemia (severe anemia) and those with moderate thalassemia (anemia) Medium), and the relationship of the disease to some biochemical variables related to the disease. Several techniques and methods of work have been used to measure the variables, including ELISA and Hb-electrophoresis, spectrophotometer, one-step method of the immune enzyme sandwich and others.

The results showed a noticeable increase in the efficacy of the enzyme mentioned in all the samples under study, as well as an increase in the iron level in serum and an increase in the efficacy of transporting enzymes of the AST group. ALT All were significantly correlated with adenosine deaminase activity.

The study concluded that adenosine deaminase and its associated chemical factors play a role in the development and development of thalassemia(3).

4. Publishing Dr. Evan Hamid Roel, lecturer at

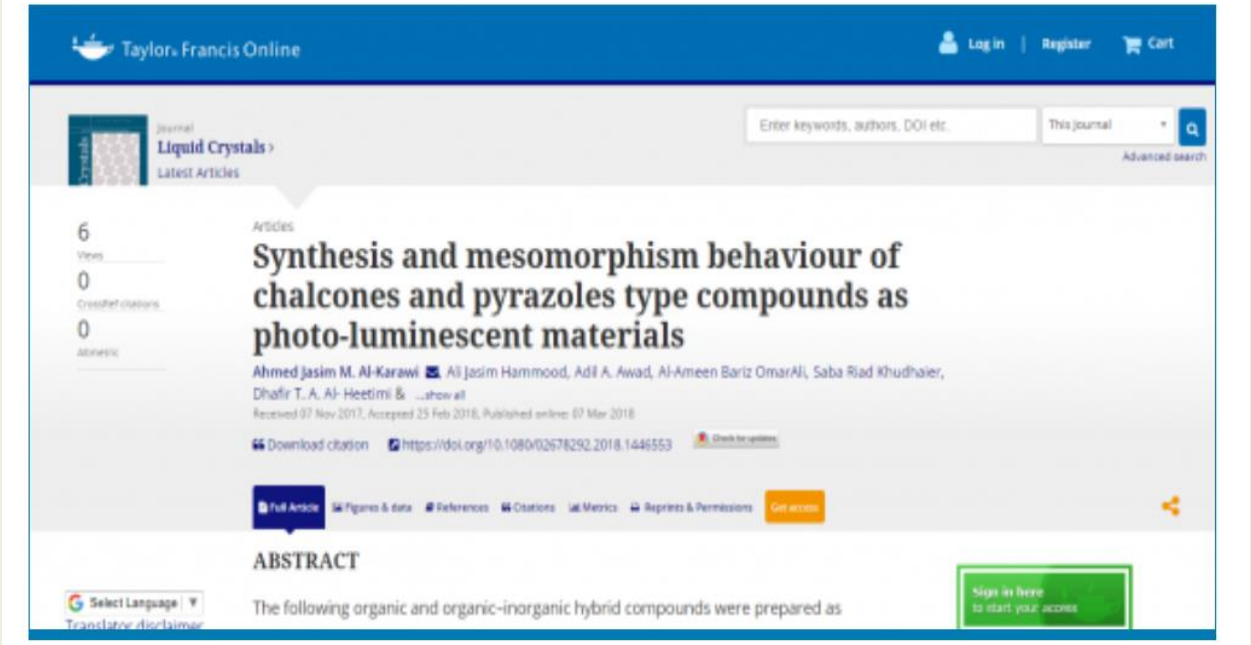
Department of Chemistry - College of Science - Al-Mustansiriya University with doctoral student Ghassan Qais Ali, sober scientific research entitled:Synthesis and characterization of new mesogenic esters derived from 1,2,4-oxadiazole and study the effect of alkoxy chain length in their liquid crystalline properties

n the journal Liquid Crystals, which fall under the Thomson Reuters classification, the research aims to prepare and diagnose some heterocyclic compounds that contain the oxadiazole ring and ester bonds and to study their liquid crystal properties. Polarized Light (4).

In the journal Liquid Crystals, which fall under the Thomson Reuters classification, the research aims to prepare and diagnose some heterocyclic compounds that contain the oxadazole ring and ester bonds and study their liquid crystalline properties. Polarized Light (9) .

5. The research team, consisting of Assistant Professor Dr. Ahmed Hussein Ismail and Professor Dr. Ali Muhammad Ali Al-Muqarim headed by Dr. Muhammad Mahmoud Shahid from Malay University in Malaysia, managed to publish their research (one-step synthesis of nitrogen graphene). The leaves are decorated with cobalt hydroxide nanoparticles to estimate dopamine in the international journal (Progress in Natural Sciences: International Materials) classified under the Thomson Reuters rating and factor (2.038). Thermals. The prepared compounds were diagnosed using various techniques such as x-rays and electronic imaging.(5)

6A research team composed of teachers in the College of Sciences (Departments of Chemistry and Life Sciences) for each of: Ahmed Jassem Muhammad, the master's student Ali Jassem Muhammad and Professor Dr. Adel Ahmed Awad Muhammad Saba Riyad Khudair and M. Amin Barz Omar Ali performs and publishes the research categorized in the synthesis and drawing of the form of agate and pyrazole compounds as a glow in the liquid crystals journal, which is considered one of the discreet international journals classified under the Thomson Reuters classification with an impact factor of 2.66(6) .



-7 Teaching at the Department of Chemistry at the College of Science at Al-Mustansiriya University, Dr. Yusra Karim Jaber Al-Hilali, has published a joint research with a group of researchers from Britain and Germany entitled- :

Zinc - dysprosium functional amyloid fiber.

In the journal (Dalton Transactions)

The study aims to manufacture nanofibers from the amino acid peptide and the inorganic bimetallic compound and use these fibers as a catalyst to catalyze some chemical reactions.

The study relied on previous experiences conducted in this field to clarify the possibility of using inorganic complexes to activate the catalytic activity of nanofibers.

The study included the manufacture and diagnosis of the chemically inorganic bimetallic compound using some spectroscopic methods, then carried the compound on nanofibers with fibers and used as safe new catalysts for some chemical reactions.

Research results showed that the prepared nanofibers possess a catalytic property such as Lewis acid to activate the reactions(7)

8We publish a teaching team consisting of Prof. Abdul Qadir Muhammad Nuri Jassem and Prof. Mustafa Taha Muhammad teaching in the Department of Chemistry, College of Science at Al-Mustansiriya University with the participation of master's student, Ghafran Muhammad, for a sober scientific research under the title

"Study the vital and effective components as an anti-oxidant and anti-inflammatory for mangosteen fruit and its ability to act as a wound healer".

Study of phytochemical, antioxidant and antiinflammatory of mangosteen (g. Mangostana) and its ability to wound healing

In the journal Arch Archives, which falls under the classification of (Scopus), the aforementioned research aims to study the active ingredients in mangosteen fruit and its ability as an antioxidant, as the results showed the plant's ability to act as an antioxidant. On the other hand, the active substance in the plant has been converted into a medicinal ointment for the treatment of wounds developed on the appearance of experimental mice, which gives an indication of the possibility of using the medicinal plant in the pharmacological fields(8) .

9- Al-Mustansiriya University, published a sober scientific research under the title

(Investigation of MYOC gene direction in primary congenital glaucoma in a sample of Iraqi children)

In the journal (Gene Reports), which falls under the classification of (Scopus) with an effect coefficient of 0.6, the research aims to study the genetic variations in the MYOC gene encoding the myocelin protein that increases the risk of developing initial congenital glaucoma(9)

10-Written by AMD Hamid Hashem Muhammad and Professor Ahmed Mutanabi Abdullah and researcher Muhammad Abdul Nabi, two faculty members in the Department of Chemistry at the College of Science at Al-Mustansiriya University, a sober scientific research under the title

)Synthesis, antibacterial evaluation and cohesion

study for some new pyridine pyrimidine and molten naphtheridine cyclesIn the world journal Pharma Technology

That fall under the field's classification. The research aims to prepare two types of conjunctival rings, the nephridine ring and the pyrimidine-pyrimide ring derived from the pyrimidine compound. The vehicles were diagnosed by spectroscopic methods. Antimicrobial activity was studied, the compounds showed excellent efficacy, and association with the active site of glucose amine phosphate for active compounds was studied (10) .

11- Publish parameters. Hora Qasim garrison and my Lord Fahmy Abbas and M. Alaa Abdul Wahid Jassim in the Department of Chemistry at Al-Mustansiriya College is a discreet scientific research under the title

)Kinetics study of Doxycycline removal drug from aqueous solution using aluminum oxide surface

In a journal Egyptian Journal of Chemistry (ISSN 0449-2285)

That fall under the classification. Ranges, with a influence coefficient of 0.180 and research objectives A study of the motility of doxylene adsorption on the surface of aluminum oxide using five lawsPseudo-Class I, Pseudo-Class II, Elovich, fracture strength, and propagation within the particles In addition to studying the effect of time, concentration and temperature.(11)

1483 *Egypt.J.Chem.* **Vol. 62**, Special Issue, pp. 1713 - 1723 (2019)

Egyptian Journal of Chemistry
http://ejchem.journals.ekb.eg/

Kinetics Study of Removal Doxycycline Drug from Aqueous Solution using Aluminum Oxide surface

Hawraa Kassem Hami, Ruba Fahmi Abbas*, Ala'a Abdullwahid Jasim, Dhifaf A. Abdul abass, Marwa A. Abed, Asma A. Maryoosh
Department of Chemistry, College of Science-University of AL-Mustansiriyah-Baghdad-Iraq.

THE batch adsorption of doxycycline from aqueous solution using aluminum oxide under different experimental conditions was investigated in this study. The effect of initial concentration, sample volume, contact time and pH have been reported. A comparison of kinetic models applied to the adsorption of doxycycline on the adsorbents was evaluated for the pseudo first-order, the pseudo-second-order, Elovich, Fractional power and intra particle diffusion kinetic models were utilized to the adsorption data in respect of investigating the kinetic process; kinetic data were best fitted to the pseudo-second-order model validated by normalized standard deviation (NSD), average relative error (ARE) and chi-square test (Chi-X2). The result suggested that the intra particle diffusion was one of the rate-limiting steps.

Keywords: Kinetics, Doxycycline, Adsorption, Aluminum Oxide.

12.Dr. Yousry Karim El Helaly, Professor, Department of Chemistry / College of Science / Al-Mustansiriya University, MA student, Eleanor Giawant from the Department of Biochemistry and Medical Biology at the University of Sussex, discussed her thesis:

Disclosure of a new role for nuclear tau in Alzheimer's disease

The discussion committee consisted of Dr. Yosra Al-Hilali, member, d. Majed Hafiz, member and professor Louise Purple, member and supervisor

After the student submitted her thesis and answered the committee's questions and inquiries about the subject of the thesis, the student obtained a master's degree in the specialization: genetic manipulation and molecular cell biology(12)

13Posted by Monem Radwan Ali and Prof.Dr. Suzan Saadi Hussein, faculty members of the Department of Life Sciences, College of Science, and Prof. Dr. Abdul Qadir Muhammad Nuri in the Department of Chemistry at Al-Mustansiriya University is a sober scientific research under the title (The effect of GO nanometriccaland ZnO nanoparticles on the AHL signal controlled by QS gangs in Psudomonas aeruginosa) In the biochemical and cellular acher journal. That fall under the classification

The research aims to use nanomaterials instead of antibiotics to eliminate Psudomonas aeruginosa, which are resistant to antibiotics. These alternatives are safe and concentrations.

Low, the study showed the elimination of the ability of genetic bacteria to produce virulence factors and provide an opportunity for normal antibodies to function after weakening them(13)

Recommendations:

1-Providing more scientific lectures that deal with the harmful effects of chemicals and how to deal with them and ways to prevent them.
2- International scientific cooperation with leading institutions in the matter of chemical safety and security
3- Spreading cultural awareness in society about the dangers of chemicals and their harmful effects

4- Using natural alternatives to reduce the impact of chemicals used in the manufacture of detergents, perfumes and materials

Reference

1- https://www.jpsr.pharmainfo.in/Documents/Volumes/vol10Issue06/jpsr10061870.pdf
2- http://www.jgpt.co.in/index.php/jgpt/article/view/1412/1035
3-https://uomustansiriyah.edu.iq/article.php?post_id=562:158
4-https://uomustansiriyah.edu.iq/article.php?post_id=2407:6
5- https://uomustansiriyah.edu.iq/article.php?post_id=2406:6
6-https://uomustansiriyah.edu.iq/article.php?post_id=2225:6
7- https://uomustansiriyah.edu.iq/article.php?post_id=3418:6
8-https://uomustansiriyah.edu.iq/article.php?post_id=3374:6
9-https://uomustansiriyah.edu.iq/article.php?post_id=3369:6
10-https://uomustansiriyah.edu.iq/article.php?post_id=783:158
11-https://uomustansiriyah.edu.iq/article.php?post_id=793:158
12-https://uomustansiriyah.edu.iq/article.php?post_id=483:158
13-https://uomustansiriyah.edu.iq/news_archive.php?id_dept=6&t=n

رابط الجامعة : https://uomustansiriyah.edu.iq
اعداد :
مكان العمل :

Mustansiriya University

Clamite-13

The harmful effects of chemicals on the environment and human health[2]

Collage of Sciences,
Department of Chemistry

رابط الجامعة : https://uomustansiriyah.edu.iq
اعداد :
مكان العمل :