



4th Scientific International Conference of the Faculty of Science, Benha University

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**"Applied Sciences Conference for Future Challenges and
Sustainable Development"**





4th Scientific International Conference of the Faculty of Science, Benha University



Prof. Dr. Nasser El-Gizawy

President of Benha University



Eng. Ayman Attia

Qalyubia Governor



Prof. Dr. Sayed Fouda

Vice President of the University
for Environmental Affairs and
Community Service



Prof. Dr. Gehan Abdel Hady

Vice President of the University
for Postgraduates and Research



4th Scientific International Conference of the Faculty of Science, Benha University



Prof. Dr. Mohamed Heikal

Dean of the Faculty



Prof. Dr. Nehad El-Barkey

**Vice Dean of the Faculty
for Environmental Affairs
and Community Service**



Prof. Dr. Aly Abdel Maaboud

**Vice Dean for Postgraduates
and Research**



Prof. Dr. Mohamed Abo Riya

**Vice Dean for Education
and Students Affairs**



4th Scientific International Conference of the Faculty of Science, Benha University



Prof. Dr. Mustafa El-Sheikh

Prof. of Phycology, Faculty of Science,
Former Vice President of Tanta University



Prof. Dr. Ahmed Abdel Moneim

Dean of the Faculty of Science
at Japanese University



Prof. Dr. Mohamed Mokhtar

Prof. of Physical Chemistry,
Faculty of Science, Benha University



Prof. Dr. Ahmed Younis

Vice Dean for Students Affairs,
Faculty of Science, Alexandria University



Prof. Dr. Ahmed Shenawy

Executive director of the Salam-med,
Researcher at the Desert Research Center



Prof. Dr. Ihab El-Dabaa Sabry

Prof. and Head of the Department of Biochemistry
and Molecular Biology Tudor
Bellharses Research Institute



4th Scientific International Conference of the Faculty of Science, Benha University

Sessions

Session A: Applied Chemistry	
Prof. Dr. Mahmoud Mousa Chairman	
Prof. Dr. Ashraf Farouk Co-chairman	Prof. Dr. Gamal Oweis Co-chairman
13:30-14:30	Kinetic studies on the catalyzed and un-catalyzed pyrolysis of mixed HDPE and PP (75:25 wt %) plastic waste using a combination of model-fitting and model-free methods <u>D. M. Fathy</u> , <u>E. M. Kamar</u> , <u>M. Hanafy</u> , <u>M. A. Mousa</u>
	Convenient green production of CeO₂ nanoparticles by the auto combustion method <u>Omnia Abd El-Dayem</u> , Mostafa Y. Nassar, Hossam S. Jahin, Wagdy El-DougDoug and, Hesham H. El-Feky
	Green Synthesis of Pyrimidine Derivatives and Evaluation of Their Biological Activity <u>Yasmen Mohamed</u> , Mohamed S. Behalo, Iman A. Gad Elkarim, Amr Fetaha
	Removal of Mn(II), Cd(II) and Ni(II) cations from aqueous solutions using modified chitosan by simple method <u>Noha T. Abo El-nassar</u> , Abdou S. El-Tabl, Hossam S. Jahin, Mohammed H. H. Abu-Setta, Alaa. S. Amin, Islam. M.I. Mustafa
	Sonochemical and photocatalytic degradation of brilliant green in aqueous medium as an effective technique for water treatment <u>Zeinab M. Badr</u> , W. Abbas, Gamal O. El-Sayed, Islam M Shaheen

Session D: Applied Chemistry (Posters)	
Prof. Dr. Wagdy El Dogdog Chairman	
Prof. Dr. Wafaa Biomy Co-chairman	Prof. Dr. Safenaz Mohamed Co-chairman
Preparation and study of Magnesium oxide nanoparticles using combustion method <u>F. A. Hosni</u> , <u>A. A. Ali</u> , <u>Sayed A. Shama</u>	
Effortless green synthesis of zero-valent copper nanoparticles <u>Ahmed E. Mostafa</u> , Hesham H. El-Feky, Mostafa Y. Nassar and Hisham Marawan Aly	
Preparation and characterization of ZnMn₂O₄ via auto-combustion synthesis <u>I. H. Ahmed</u> , <u>S. A. Shama</u> , <u>M. M. Elsayed</u> , <u>A. M. El-sharkwy</u> , <u>A. A. Ali</u>	
The study of antimicrobial activity and molecular docking simulation of treated cotton fabric with fire retardancy phosphorous-PMMA/modified MMT nano composites <u>Osama A. Goda</u> , Mohamed N. Ismail, Naglaa M. Mohamed, Ahmed A. Zaher and Moustafa E. Moustafa	
Fundamental effective technique for water treatment by using sonochemical and photocatalytic degradation of methylene blue in aqueous medium <u>Zeinab M. Badr</u> , W. Abbas, Gamal O. El-Sayed, Islam M Shaheen	



4th Scientific International Conference of the Faculty of Science, Benha University

Session B: Microbiology

Prof. Dr. Dina Baraka

Chairman

Prof. Dr. Mohamed Osman

Co-chairman

Prof. Dr. Hamed El-Adel

Co-chairman

13:30-14:30

Wastewater Treatment by Biological Filtration Technique Improves Biochemical and Microbiological Parameters in Nile tilapia (*Oreochromis niloticus*)

[Shireen Ashmawy](#), Mohamed O. Abdel-Monem, Elsayed E. Elsayed, Ghada E. Dawwam

Myco-synthesis of silver and ZnO nanomaterials using endophytic fungi isolated from different locations in Egypt for sustainable development

[Mahmoud M. Fathy](#), Amal M. Omer, Rabaa Yaseen, Soheir S Abdel Salam, Ghada E. Dawwam

Complete genome sequencing and probiotic characterization of promising lactic acid bacterial strains isolated from dairy products in Egyptian markets

[Mostafa Fetoh El-Hosseney](#), Mohammed Osman Abdel-Monem and Mervat Gameel Hassan

Antimicrobial activity and MIC of microbial biosynthesized silver nanoparticles

[Hadeer Y. Abdel-Aziz](#), Amr A. El-Waseif, Mervat G. Hassan, Mahmoud M Amer, M. O. Abdel-Monem

Response of Fungal L-glutaminase to Anhydrides and Chelating Agents

[Esraa A. Sobieh](#), Mervat G. Hassan, Mohamed O. Abdel-Monem, Sabah A. Abo ElMaaty, Hamed M El-Shora

Antagonistic Activity of Probiotics against Gram Negative Bacteria

[Nada K. Galal](#), Amr A. El-Waseif, Mervat G. Hassan, Sabah A. Abo El-Maaty

Immunomodulatory and Antioxidative Effects of Vanillin on Human Acute Monocytic Leukemia Cells: A Potential Therapeutic Approach for AMoL

[Shimaa Sobhy](#), Alaa Elmetwalli, Dina M. Baraka, Jihan Hassan, Mervat G. Hassan

Session D: Microbiology (Posters)

Prof. Dr. Mahmoud Amer

Chairman

Dr. Ahmed Esmail

Co-chairman

Dr. Ghada Eid

Co-chairman

Occurrence of toxigenic fungi in sugarcane juice

[Rania Abd Elatif Goz](#), Sabah A. Abo-Elmaaty, El Sayed M. Embaby, Mervat G. Hassan

Characterization of Probiotic Features Isolated From Fruits and Vegetables

[Mohamed R. Ragab](#), Amr A. El-Waseif, Mervat G. Hassan, Mohamed O. Abdel Monem, Mohamed H. Yassin

Biominerization of CaCO₃ by Bacillus sp. 8WNM for Application as Bio-Cement

[Doaa M. Abdel-Monem](#), Mohsen S. Asker, Esraa E. Ali, Rasha Y. Abd Elghaffar, Mohamed O. Abdel-Monem

Harnessing Bacterial Metabolites for the Synthesis of Cu-silicate NPs: A Sustainable Route to Antimicrobial and Anticancer Application

[Hanaa S. Farouk](#), Alaa Elmetwalli, Gharieb S. El-Sayyad, Dina M. Baraka, Mervat G. Hassan

The Bioactivity and Modulatory Properties of Functionalized Bacterial Glutaminase in Cancer Biology

[Mohamed Magdy](#), Mervat G. Hassan, Mohamed O. Abdel Monem, Mohamed H. Yassin, Alaa Elmetwalli



4th Scientific International Conference of the Faculty of Science, Benha University

Session C: Geology, Zoology, Physics and Entomology

Prof. Dr. Lotfy Abo Salem
Chairman

Prof. Dr. Nasr Allah Abdel Hamid
Co-chairman

Prof. Dr. Gamal El Kot
Co-chairman

Prof. Dr. Mona Fawzy
Co-chairman

13:30-14:30	Assessment of Reservoir potentiality for Abu Madi Formation, Southwest Disouq Field, Onshore Nile Delta, Egypt <u>Abdel Aziz M. Afife M., Abdelhady A., and Wafaa Elshahat</u>
	The role of Fennel on bodyweight, metabolites and anemia in male albino rats injected with PHZ <u>Dina, I. Nasr; Aziza, A. M. El-Shafey; Moshira, M. Ezzat.; Doaa, S. Ibrahim.; and Marwa, A.E. Abd El-Maksoud</u>
	Assessment of Monosodium Glutamate-induced histological and osteological injury in rats embryo and amelioration with pomegranate juice. <u>Vivian N. Shawky; Ragaa M. El-Balshy; Amal M. Abdel-Kareim; Mervat K. Iskandar</u>
	Association between Some Reproductive Hormones and Breast Cancer Progression in Premenopausal Women <u>Shereen S. Marwan, Nassr-Allah H. Abdel-Hameid, Moshira M. E. Seliem, Amr Abuzeid, Mohamed A. Abdelrazek</u>
	The effect of isothermal annealing on the AC conductivity of Polyvinyl Alcohol-based polymer as an energy storage system <u>S.Y. Ibrahim, E. Sheha, S Abouelhassan</u>
	DC Conductivity and Tensile behavior Investigation on Fumed Silica–EPDM Nanocomposite for Electric Insulation Applications. <u>S.A. Moselhy, R.Sobhy, N.A.M.Eid, S.I ELkalashy, M.K.El-mansy</u>
	Insecticidal effect and biochemical studies of entomopathogenic nematode strains against fall armyworm, Spodoptera frugiperda (Lepidoptera: Noctuidae). <u>Samar M. Galal, Mona A. Hussein, Rawhia H. Ramadan, Nancy M. El-shourbagy</u>
	Efficacy of silica and tin doped silica nanoparticles on the fourth larval instar of Culex pipiens <u>Aya H. El-Khawaga, Nehad M. El-Barkey, Mostafa Y. Nassar, Aida S. Kamel, Sarah L. Ibrahim & Mohamed M. Baz</u>



4th Scientific International Conference of the Faculty of Science, Benha University

Session D: Geology, Zoology, Physics and Entomology (Posters)

Prof. Dr. Mohamed El-Fakharany

Chairman

Prof. Dr. Abla El-Desouky

Co-chairman

Prof. Dr. Said Abdel Ghany

Co-chairman

Evaluation of Groundwater Quality Using the Water Quality Index (WQI) in Delta Wadi Sudr, South Sinai, Egypt

Eslam, A. Elghandour, Fardous, M. Zarif, Ahmed, M. Elshenawy, Wafaa, E. Afify and Nehad, M. Mansour

Groundwater Potential Assessment Using Analytic Hierarchy Process (AHP), Remote Sensing, and GIS: A Case Study from the Zaafarana Region, Western Coast of the Gulf of Suez, Egypt

Ahmed M. Ketkat, Ahmed M. El Shenawy, Fardous M. Zarif, Wafaa E. Afify, Hesham M. El Kaliouby, Nehad M. Mansour

Radiobiological impact of calculation slice thickness on head and neck IMRT plans using MATLAB

Alzahraa Ali, Ehab M. Attalla, and Samira M. Sallam

Ablation of Polyester Capillaries by Electrothermal Pulsed Plasma Discharge

M. M. Abo El-Hadeed, M. E. Abdelkader, F. B. Diab, T. Y. Elrasasi, and M. A. Abd Al-Halim

Isolation and identification of some pathogenic bacteria from water samples in Qalubiya Governorate

Sara A. Nasser, Hesham M. Abd El Halim, Mohamed A. Nasr-Eldin, Alsayed E. Mekky, Nehad M. El-Barkey

14:30 - 15:30 Lunch Break

General assembly: Closing Ceremony

15:30 - 16:00

Closing Session and Recommendations



4th Scientific International Conference of the Faculty of Science, Benha University
Day 2 – Sunday 22 December 2024

General assembly: Opening Ceremony (Conferences Hall, Benha University) قاعة تحيا مصر	
9:00-9:30	Opening Session (Session A) Prof. Dr. Mohamed Heikal Dean of the Faculty Prof. Dr. Aly Abdel Maaboud Vice Dean for Postgraduates and Research Prof. Dr. Mohamed Abo Riya Vice Dean for Education and Students Affairs
9:30-10:00	“Geophysical Contribution for Sustainable Agriculture and Environmental Management” Prof. Dr. Ahmed Mohamed Saad El Shenawy Executive director of the Salam-med Program funded by the European Union and a researcher at the Desert Research Center
10:00-10:30	“The lecture title Recombinant biopharmaceutical drugs R&D in TBR” Prof. Dr. Ihab El-Dabaa Sabry Prof. and Head of the Department of Biochemistry and Molecular Biology Tudor Bellharses Research Institute
10:30-11:00	Guest Honors

11:00 - 11:30 Coffee break

Sessions

Session A: Applied Chemistry	
Prof. Dr. Alaa Amin Chairman	
Prof. Dr. Sayed Abdel Aziz Co-chairman	Prof. Dr. Aly Abdel Maaboud Co-chairman
11:30-12:30	Synthesis and Evaluation of Cationic Surfactants <u>Amira Mahmoud</u> , Wagdy I. El-DougDoug, <u>Mohamed A. Abo-Ryia</u> , Hany I. Mohamed
	Studying the effect of adding thiourea to HFE on Mg-S battery behavior and its properties <u>Engy El-Dek</u> ; Eslam sheha; Alaa S Amin
	Synthesis and characterization of zinc oxide nanoparticles using hydrothermal method <u>M. M. Abdel Fattah</u> , A. A. Ali and I. S. Ahmed
	Synthesis and characterization of cerium oxide nanoparticles using combustion method <u>E. M. Qansowa</u> , A. A. Ali, I. S. Ahmed
	Impact of some environmental conditions on the degradation of some pendimethalin formulations currently applied in Egypt. <u>Basma A. Nasser</u> , Hesham H. El-Feky, Ismail I. Ismail, Alaa S. Amin



4th Scientific International Conference of the Faculty of Science, Benha University

Session C: Applied Chemistry (Posters)

Prof. Dr. Mohamed Behalo

Chairman

Prof. Dr. Ahmed Tantawy

Co-chairman

Dr. Ayman Awad

Co-chairman

Non-ionic Surfactants as Enhancement Oil Recovery based on Oleic Acid as Commercial Raw Material.

Gamal M. El-Sayed, Mohamed A. Abo-Riya and Wagdy I. El-DougDoug

Utility of solid-phase extraction coupled with spectrophotometry for the determination of silver using 6-(2-(4-(dimethylamino)benzylidene)hydrazinyl)-N₂,N₄-di-p-tolyl-1,3,5-triazine-2,4-diamine

Fatma Magdy, Hesham H. El-Feky, Kamal A. Soliman, Hany I. Mohammed and Alaa S. Amin

Utilization of solid-phase extraction for colorimetric determination of trace amounts of Sn(II) in real samples

Ekhlass M. Araby, Hesham H. El-Feky, Kamal A. Soliman, Hany I. Mohamed and Alaa S. Amina

Electrochemical investigation of lead alloy corrosion and passivation in acidic environments

Moataz S. Borham, Elsayed M Mabrouk, Reham Helmy Tammam, Tomader El-Essawi, and Asmaa AI Ali

Tomato peels extract as a green corrosion inhibitor for carbon steel in acetic acid solution

Sally M. Refaat, Hanan B. Newigy, Aly Y. El-Etre, Elsayed M. Mabrouk

Session B: Microbiology

Prof. Dr. Mahmoud Amer

Chairman

Prof. Dr. Radwan Khalil

Co-chairman

Dr. Mervat Gamil

Co-chairman

Numerical taxonomic study on some plant species of family Geraniaceae collected from Egypt desert

Rabab Rashad, Ahmed Moubarak and Hala Nosier

Eco-Friendly Fabrication of Metal Nanoparticles with Enhanced Antimicrobial and Anticancer Properties

Abdulhalim Eldfrawy, Alaa Elmetwalli, Gharieb Al-Sayyad, Mohamed Nasr-Eldin, Mervat G. Hassan

Isolation of Polyhydroxybutyrate Microbial Producer from Local Egyptian Soil

Reem H. Abd El gawad, Neveen M. El-Metwally, Mervat G. Hassan, Dina M. Baraka

11:30-12:30

Antibacterial activity of ethanolic extracts of thymus vulgaris and Cinnamomum camphora on human pathogenic bacteria.

Yasmin M. Elsayed, Mervat G. Hassan, Amr A.El-Waseif, Hamed M.El-Shora, Mohamed O. Abdel-Monem

Impact of Sulfur Compounds on the Activity of Bacterial L- methioninase

Samah A. Ismail, Mervat G. Hassan, Sabah A. Abo El maaty and Hamed M El-Shora

Screening and Optimization of Polyhydroxybutyrate Production by Streptomyces sp. 3MGH Isolated from the Egyptian Soil

Ghada E. Mohamed, Mervat G. Hassan, Mohamed E. El Awady, Fatma N. El-Shall, and Mohamed O. Abdel-Monem

Biosynthesis, extraction, purification of postbiotic from probiotic isolate

Nada E. Taha, Amr A. El-Waseif, Mervat G. Hassan, Sabah A. Abo El-Maaty



4th Scientific International Conference of the Faculty of Science, Benha University

Session C: Microbiology (Posters)

Prof. Dr. Mohamed Hesham

Chairman

Dr. Sabah Abo El Maaty

Co-chairman

Dr. Mohamed Atef

Co-chairman

Biosynthesis and Characterization of Silver-Selenium Nanoparticles from Endophytic Fungi and Their Biological Activity

Mohamed Salah Elsayed, Alaa Elmetwalli, Ghariieb Al-Sayyad, Attia A. Attia, Mervat G. Hassan

Copper-Zinc Nanoparticles: Synthesis, Physicochemical Properties, and Biological Efficacy Against Bacteria and Cancer Cells

Mohamed Gamal, Ghariieb Al-Sayyad, Alaa Elmetwalli, Sabah A. Abo-ElMaaty, Mervat G. Hassan

Modification of Fungal L-arginase by Some Modifiers of the active Enzyme Residues

Nayra E. Radwan, Mervat G. Hassan, Mohamed O. Abdel Monem, Attia A. Attia, Hamed M El-Shora

Isolation and Biosensitivity Assessment of Carbapenem-resistant Escherichia coli Strains

Aya Ahmed, Sabah Abo-Elmaaty, Ramy Karam, Ahmed Aabdelaziz, Mervat G. Hassan

Molecular Characterization of Hepatitis B Virus: Correlation of Cytokine Profiles with Clinical Severity

Mohamed F. Eltayeb, Mohamed Nasr-Eldin, Rania Rizk, Ayman Hassan, Mahmoud M. Amer, Alaa Elmetwalli

12:30 – 13:30 Student Research Session

Session A: Students' Posters

Prof. Dr. Mohamed Abo Riya

Chairman

Prof. Dr. Nasr Allah Abdel Hamid

Co-chairman

Prof. Dr. Mona Fawzy

Co-chairman

Dr. Ayman Awad

Co-chairman

Prof. Dr. Mohamed Osman

Co-chairman

Prof. Dr. Kamal Amal

Co-chairman

Dr. Hesham El Feky

Co-chairman

13:30 - 14:30 Lunch

General assembly: Closing Ceremony

14:30 – 15:30

Distribution of Certificates

15:30 -16:00

Closing Session and Recommendations



4th Scientific International Conference of the Faculty of Science, Benha University

برنامج المؤتمر العلمي الرابع

العلوم التطبيقية لتحديات المستقبل والتنمية المستدامة

