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Mohamed Ashraf Abdelaziz Elbindary

Date of birth: 01/07/1992 | **Nationality:** Egyptian | **Phone number:** (+20) 01146126591 (Mobile) | **Email address:** m.a_bindary@yahoo.com |

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Address: First District - Second Neighborhood , 34517 , New Damietta, Egypt (Home)

ABOUT ME

Associate professor and researcher in the field of chemistry, Inorganic Chemistry Department
h-index 30, Total citations 3009, Documents: 46
https://www.scopus.com/authid/detail.uri?authorId=57188536034

WORK EXPERIENCE

POLYMER INSTITUTE SAS – BRATISLAVA, SLOVAKIA

Website https://polymer.sav.sk/home/

POSTDOCTORAL RESEARCHER – 01/10/2025 – 29/12/2025

Synthesis and Physicochemical Characterization of a Chitosan-Enhanced MOF for Environmental Sensing of Heavy and Toxic Metals

HIGHER INSTITUTE OF ENGINEERING AND TECHNOLOGY – NEW DAMIETTA, EGYPT

Business or Sector Professional, scientific and technical activities | **Department** Basic science and chemical engineering

ASSOCIATE PROFESSOR AND RESEARCHER – 30/08/2025 – CURRENT

Teaching lectures
Scientific research and publishing
Administrative work

HIGHER INSTITUTE OF ENGINEERING AND TECHNOLOGY – NEW DAMIETTA, EGYPT

Business or Sector Professional, scientific and technical activities | **Department** Basic science and chemical engineering |

Address Central District - Phase 2 - In front of the Fourth District, New Damietta, Egypt | **Email** ndeti.contact@gmail.com |

Website https://www.ndeti.edu.eg/

LECTURER AND RESEARCHER – 19/09/2020 – 2025

Teaching lectures
Scientific research and publishing
Administrative work

HIGHER INSTITUTE OF ENGINEERING AND TECHNOLOGY – NEW DAMIETTA, EGYPT

Department Basic science and chemical engineering

ASSISTANT LECTURER – 25/02/2018 – 18/09/2020

Teaching practical courses
Scientific research and publishing
Administrative work

HIGHER INSTITUTE OF ENGINEERING AND TECHNOLOGY – NEW DAMIETTA , EGYPT

Business or Sector Professional, scientific and technical activities | **Department** Basic science and chemical engineering

DEMONSTRATOR – 01/09/2014 – 25/02/2018

Teaching practical courses
Scientific research and publishing
Administrative work

FACULTY OF SCIENCE - PORT SAID UNIVERSITY – PORT SAID, EGYPT
Business or Sector Professional, scientific and technical activities | **Department** Chemistry | **Website** http://sci.psu.edu.eg/

DEMONSTRATOR (PART TIME) – 2015 – 2017

Teaching practical courses
Scientific research and publishing

EDUCATION AND TRAINING

16/05/2019 Port Said, Egypt
PHD OF SCIENCE IN CHEMISTRY Faculty of Science - Port Said University

Website http://sci.psu.edu.eg/ | **Field of study** Inorganic Chemistry

04/12/2016 Port Said, Egypt
MSC OF SCIENCE IN CHEMISTRY Faculty of Science - Port Said University

Website http://sci.psu.edu.eg/ | **Field of study** Inorganic Chemistry

24/11/2015 Alexandria , Egypt
PROFESSIONAL DIPLOMA IN PETROCHEMICALS Faculty of Science - Alexandria University

Website https://sci.alexu.edu.eg/index.php/en/ | **Field of study** Petrochemical Diploma | **Final grade** GPA 3.11

21/07/2014 New Damietta, Egypt
BSC OF SCIENCE (CHEMISTRY) - VERY GOOD(THE THIRD- 82.05%) Faculty of Science - Damietta University

Website https://www.du.edu.eg/faculty/sci/en/ | **Field of study** Special Chemistry | **Final grade** 82.05%

01/07/2012 – 31/07/2012 Damietta, Egypt
SUMMER TRAINING The Egyptian Methanex Methanol Co. SAE

Website https://www.methanex.com/about-us/global-locations/egypt/

14/07/2013 – 01/08/2013 Damietta, Egypt
SUMMER TRAINING The Egyptian Methanex Methanol Co. SAE

Website https://www.methanex.com/about-us/global-locations/egypt/

02/09/2013 – 12/09/2013 Damietta, Egypt
SUMMER TRAINING Misr Fertilizers Production Company (MOPCO)

Website https://www.mopco-eg.com/en

LANGUAGE SKILLS

Mother tongue(s): **ARABIC**

Other language(s): **ENGLISH**

SKILLS

Microsoft Office package: Microsoft Word, Excel, PowerPoint, Access | MestReNova, MarvinSketch and ChemDraw | Origin software (data processing and analysys) | Google (Google Meet, Google Docs, Google Classrom, Google Forms, Google Drive, Google Slide); | Zoom (Meeting) | SEM, TEM, BET, XPS, XRD, FT-IR, XPS, UV-VIS, TGA, HPLC, 1HNMR, 13CNMR

PUBLICATIONS

2025
Sustainable cobalt (II) removal from wastewater using an electrospun Ag-MOF/polycaprolactone-chitosan nanofiber membrane: Optimization and regeneration performance

2025
Sustainable removal of Cd(II) using β-Cyclodextrin/Polyethylenimine hydrogel beads embedded with silver-MOFs: Synthesis, characterization, mechanism, and process optimization

2025
Efficient removal of tetracycline by VCo-layered double hydroxide encapsulated with chitosan: Optimization via Box-Behnken design, and thermodynamics

2025
Box–Behnken optimization of stimuli-responsive DOX@Ag-MOF/chitosan — Polycaprolactone nanofiber membranes for smart controlled drug delivery and multifunctional therapeutic applications

2024
Azo naringenin-based copper (II) complex as DNA binder: Synthesis, spectroscopic characterization, and diverse biological potentials

2024
Synthesis, spectroscopic characterization studies of chelating complexes and their applications as antimicrobial agents, DNA binding, molecular docking, and electrochemical studies

Write here the description...

2023
Superior adsorption and removal of industrial dye from aqueous solution via magnetic silver metal-organic framework nanocomposite

2023
Synthesis, structural characterization, antioxidant, cytotoxic activities and docking studies of schiff base Cu(II) complexes

2023
Adsorption and effective removal of organophosphorus pesticides from aqueous solution via novel metal-organic framework: Adsorption isotherms, kinetics, and optimization via Box-Behnken design

2023
Spectrophotometric and fluorometric methods for effective monitoring of rust state in boiler systems and Fe2+ ion in pharmaceutical samples

2023
Photocatalytic degradation of Rhodamine B dye using low-cost pyrofabricated titanium dioxide quantum dots-kaolinite nanocomposite

2023
Synthesis of novel fluorescent sensor based on a modified amino Al-MOF for rapid, sensitive, and selective detection of arsenic in aqueous solution

2023
Highly efficient adsorption and removal bio-staining dye from industrial wastewater onto mesoporous Ag-MOFs

2023
Synthesis and application of a novel self-smart sensor based on a modified amino-functionalized Zr-metal–organic framework for rapid and selective detection of some toxic metals in wastewater

2023
A novel strategy for preparing metal-organic framework as a smart material for selective detection and efficient extraction of Pd(II) and Au(III) ions from E-wastes

2023
Experimental and statistical investigation of adsorption mechanism of toxic chromium on Al-Fe-Zn oxide nanocomposite and successful application on industrial wastewater

2022
Effective methods for removing different types of dyes – modelling analysisstatistical physics treatment and DFT calculations: a review

2022
Efficiency of Fe3O4@ZIF-8 for the removal of Doxorubicin from aqueous solutions: equilibrium, kinetics and thermodynamic studies

2022
Low-temperature adsorption study of carbon dioxide on porous magnetite nanospheres iron oxide

2022
Highly efficient metal–organic frameworks for removal of industrial dyes from aqueous solutions

2022
Synthesis and characterization of NH2-MIL-88(Fe) for efficient adsorption of dyes

2022
Adsorption of doxorubicin hydrochloride onto thermally treated green adsorbent: Equilibrium, kinetic and thermodynamic studies

2022
Efficient adsorptive removal of industrial dye from aqueous solution by synthesized zeolitic imidazolate framework-8 loaded date seed activated carbon and statistical physics modeling

2022
Metal–organic frameworks encapsulated with an anticancer compound as drug delivery system: Synthesis, characterization, antioxidant, anticancer, antibacterial, and molecular docking investigation

2022
Synthesis, characterization, DNA binding, and biological action of dimedone arylhydrazone chelates

2022
Adsorption studies of carbon dioxide and anionic dye on green adsorbent

2022
Description, kinetic and equilibrium studies of the adsorption of carbon dioxide in mesoporous iron oxide nanospheres

2022
Synthesis, characterization, design, molecular docking, anti COVID-19 activity, DFT calculations of novel Schiff base with some transition metal complexes

2022
Adsorption of industrial dye from aqueous solutions onto thermally treated green adsorbent: A complete batch system evaluation

2022
Fabricating of Fe3O4@Ag-MOF nanocomposite and evaluating its adsorption activity for removal of doxorubicin

2022
Adsorption of industrial dye onto a zirconium metal-organic framework: synthesis, characterization, kinetics, thermodynamics, and DFT calculations

2021
Synthesis, identification and application of metal organic framework for removal of industrial cationic dyes

2021
Effective Removal of Methylene Blue From Aqueous Solution Using Metal-Organic Framework; Modelling Analysis, Statistical Physics Treatment and DFT Calculations

2021
Mesopores silica nanotubes-based sensors for the highly selective and rapid detection of Fe2+ ions in wastewater, boiler system units and biological samples

2021
Synthesis, characterization, DFT calculation, DNA binding and antimicrobial activities of metal complexes of dimedone arylhydrazone

2021
Effective adsorptive removal of anionic dyes from aqueous solution

2019
Synthesis, characterization and biological properties of oxovanadium(IV) complexes

2018
Synthesis, structural characterization, molecular docking and DNA binding studies of copper complexes

2016
Molecular docking, potentiometric and thermodynamic studies of azo rhodanines

2016
Adsorption of Hazardous Azorhodanine Dye from an Aqueous Solution Using Rice Straw Fly Ash

2016
Spectroscopic, thermal and geometrical structures of Cu(II) azo rhodanine complexes

CONFERENCES AND SEMINARS

20/11/2025 – 21/11/2025 Vienna-Austria
International Conference on Nanochemistry and Nanomaterial Synthesis (ICNNSY-25)

03/04/2021 – 06/04/2021 Egypt
The Fourth International Conference on Applied Chemistry

RECOMMENDATIONS

Prof. Dr. Adel Zaki MSc-Supervisor

Professor of Inorganic Chemistry, Damietta University, Egypt

Email elsonbatisch@yahoo.com | **Phone** (+20) 01060081581

Prof. Dr. Abdel Ghany Shoair PhD-Cosupervisor

Professor of Inorganic Chemistry, Damietta University, Egypt

Email Abdel_shoair@yahoo.com | **Phone** (+966) 583519716

Prof. Dr. Khaled Samir Deputy of Higher Institute of Engineering and Technology, New Damietta, Egypt

Professor of Organic Chemistry, Higher Institute of Engineering and Technology, New Damietta, Egypt

Email khaled_samirm@yahoo.com | **Phone** (+20) 01222878456

MANAGEMENT AND LEADERSHIP SKILLS

Good management and leadership skills

By attending training courses in this field, such as:
course on managing centers and units of a special nature
preparing leaders
Preparation of University teacher

COMMUNICATION AND INTERPERSONAL SKILLS

Good communication skills

The skills gained through my experience as a teaching assistant and lecturer and my interactions with my professors and colleagues.