

# Zahraa H Athab

زهراء هاشم عذاب المشايخي

Associate Professor

## PROFILE

I received my BSc in Chemistry in 2005 and MSc in Analytical Chemistry in 2011 both from the Department of Chemistry of the University of Babylon, Iraq. Since 2011 I was joined the University of Babylon /College of science for women as an Assistant Lecturer, then moved to environmental researches and studies center in 2013. I got lecturer in analytical chemistry from university of Babylon 2014. I started my PhD study in United Kingdom (UK) at the Department of Chemistry of the University of Hull in October 2015 and I finished my study in November 2019. My PhD research was focused on the development of novel renewable porous materials as well as studying their potential applications for environmental remediation. My research activities cover the areas, porous materials, smart materials, materials chemistry and environmental pollution. I currently works at the environmental researches and studies center, University of Babylon, Iraq. I got Assistant professor in analytical chemistry from university of Babylon 2022. I worked as Director of Mesopotamia environmental journal from 2021 to 2023. I currently the head of department of Environmental pollution and environmental remediation department.

## ACADEMIC TITLES

2022-09-27 Associate Professor

## ADMINISTRATIVE POSITIONS

2023-11-21 - Present head of department of Environmental pollution and environmental remediation department.

## PUBLICATIONS ( 4 5 )

- Fabrication of Hybrid Chitosan/HKUST-1 Dried Hydrogel Discs for Enhanced Antibacterial Activity**  
*Journal of Polymers and the Environment* 34 (1), 17, 2026 | 2026
- Thermoresponsive and reusable chitosan/hydroxypropyl cellulose monolithic hydrogel with interconnected porosity engineered via freeze-thaw processing for selective dyes removal**  
*International Journal of Biological Macromolecules*, 148899, 2025 | 2025
- Development and optimization of a carbon nanotubes-kaolinite composite for highly efficient removal of methyl red dye from aqueous solutions**  
*Reaction Kinetics, Mechanisms and Catalysis* 138 (5), 3229-3245, 2025 | 2025
- Manganese Electrochemistry in a Deep Eutectic Solvent: The Effects of KBr**  
*ChemistrySelect* 9 (39), e202401407, 2024 | 2024 | Cited: 1
- High-performance photocatalytic degradation and antifungal activity of chromium-doped nickel oxide nanoparticles**  
*Analytical Sciences*, 1-16, 2024 | 2024
- Comparison activity of pure and chromium-doped nickel oxide nanoparticles for the selective removal of dyes from water**  
*Scientific Reports* 14 (1), 4032, 2024 | 2024 | Cited: 24



## CONTACT

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## EDUCATION

دكتوراه (08-11-2019)

Chemistry

University of Hull

## RESEARCH METRICS

h-index (Scopus)	10
h-index (GS)	12
Citations (Scopus)	269
Citations (GS)	370
Documents (Scopus)	26
Documents (GS)	31

## RESEARCH INTERESTS

- Preparation of sustainable and novel materials for environmental remediation



7. **Hybrid chitosan/HKUST-1 hydrogel with freezing and thawing modification as sustainable porous material for removal and selective separation of dye mixtures**  
*Journal of Environmental Chemical Engineering* 12 (5), 113696, 2024 | 2024 | Cited: 30
8. **High-performance photocatalytic degradation and antifungal activity of chromium-doped nickel oxide nanoparticles**  
*Analytical Sciences* 40 (4), 655-670, 2024 | 2024 | Cited: 7
9. **Characterization of the electrochemical deposition of aluminum from an AlCl<sub>3</sub>: N-methylacetamide eutectic solvent modified with nicotinamide**  
*Surface and Coatings Technology* 475, 130160, 2023 | 2023 | Cited: 11
10. **Fabrication of graded porous structure of hydroxypropyl cellulose hydrogels via temperature-induced phase separation**  
*Carbohydrate Polymers* 315, 120984, 2023 | 2023 | Cited: 35
11. **Modification of the synthesized zinc oxide nanoparticles by doping with nitrogen with investigation its antibacterial activity**  
*AIP Conference Proceedings* 2787 (1), 2023 | 2023
12. **Modification of the synthesized zinc oxide nanoparticles by doping with nitrogen with investigation its antibacterial activity**  
*2ND INTERNATIONAL CONFERENCE ON ENGINEERING AND ADVANCED TECHNOLOGY:(ICEAT&nbsp;..., 2023 | 2023*
13. **Synthesis of carbon nanotubes with a few walls by Chemical Vapour Deposition method using a mixture of ethanol/n-propanol as a source of carbon species**  
*Egyptian Journal of Chemistry* 65 (13), 2022 | 2022
14. **One-step strategy for the synthesis of magnetic mesoporous carbon composite materials incorporating iron, cobalt and nickel nanoparticles**  
*Chemical Papers* 76 (9), 5613-5625, 2022 | 2022 | Cited: 1
15. **Synthesis of Carbon Nanotubes with A Few Walls by Chemical Vapour Deposition Method Using A Mixture of Ethanol/NPropanol As A Source of Carbon Species**  
*Egyptian Journal of Chemistry* 65 (131), 535-542, 2022 | 2022
16. **Adsorption, photodegradation, and selective removal of reactive red 2 dye onto cuprous oxide nanoparticles**  
*Monatshefte für Chemie-Chemical Monthly* 153 (7), 597-607, 2022 | 2022 | Cited: 13
17. **Enhanced macroporous cationic chitosan hydrogel by freezing and thawing method with superadsorption capacity for anionic dyes**  
*Journal of Polymers and the Environment* 30 (9), 3815-3831, 2022 | 2022 | Cited: 24
18. **Adsorption, photodegradation, and selective removal of reactive red 2 dye onto cuprous oxide nanoparticles**  
*Monatshefte für Chemie-Chemical Monthly* 153 (7-8), 597-607, 2022 | 2022 | Cited: 4
19. **Antimould action of Ziram and IPBC loaded in functionalised nanogels against *Aspergillus niger* and *Penicillium chrysogenum***  
*Materials Advances* 3 (22), 8178-8192, 2022 | 2022 | Cited: 4
20. **Fabrication of carbon nanotube (CNTs)/Co<sub>3</sub>O<sub>4</sub>-Ni<sub>3</sub>O<sub>4</sub>/Al<sub>2</sub>O<sub>3</sub> nanocomposite catalyst and its application for photocatalytic removal of Celestine blue dye**  
*Egyptian Journal of Chemistry* 65 (6), 99-110, 2022 | 2022 | Cited: 3
21. **Preparation and investigation of some physical properties and photocatalytic activity of a co-catalyst CoO-V<sub>2</sub>O<sub>5</sub>**  
*Journal of Physics: Conference Series* 1999 (1), 012002, 2021 | 2021 | Cited: 2
22. **A simple method for the synthesis of high surface area mesoporous carbon monolith via soft template technique**  
*Egyptian Journal of Chemistry* 64 (10), 5793-5801, 2021 | 2021 | Cited: 3
23. **Enhanced antimould action of surface modified copper oxide nanoparticles with phenylboronic acid surface functionality**  
*Biomimetics* 6 (1), 19, 2021 | 2021 | Cited: 16
24. **Review on preparation and characterization of activated carbon from low cost waste materials**  
*Egyptian Journal of Chemistry* 64 (12), 7255-7268, 2021 | 2021 | Cited: 16

25. **Equilibrium, isotherms and thermodynamic studies of congo red adsorption onto Ceratophyllum Demersum**  
*Indian Journal of Chemical Technology (IJCT) 24 (1), 82-87, 2017 | 2017 | Cited: 10*
26. **Preparation and characterization of activated carbon from Iraqi Khestawy date palm**  
*Journal of chemistry 2015, 2015 | 2015 | Cited: 51*
27. **Production and characterization of activated carbon from iraqi palm fiber**  
*Asian Journal of Chemistry 27 (4), 1309, 2015 | 2015 | Cited: 3*
28. **Preparation and characterization of activated carbon from Iraqi Khestawy date palm**  
*Journal of Chemistry 2015 (1), 295748, 2015 | 2015 | Cited: 60*
29. **Adsorption of Reactive Yellow Dye 145 from Wastewater onto Iraqi Zahdy and Khestawy Date Palm Seeds Activated Carbons.**  
*Asian Journal of Chemistry 26, 2014 | 2014 | Cited: 19*
30. **Removal Reactive Blue Dye from Wastewater by Adsorption on White Iraqi Kaolin clay**  
*Journal of Babylon University/Pure and Applied Sciences 7, 1947-1956, 2014 | 2014 | Cited: 7*
31. **Adsorption of Reactive Yellow Dye 145 from Wastewater onto Iraqi Zahdy and Khestawy Date Palm Seeds Activated Carbons.**  
*Asian Journal of Chemistry 26, 2014 | 2014 | Cited: 17*
32. **Effects of Activators on Adsorption Ability of Reactive Yellow-145 Dye on Activated Carbon from Iraqi Zahdi Date Palm Seeds.**  
*Asian Journal of Chemistry 26, 2014 | 2014 | Cited: 14*
33. **Removal Reactive Blue dye from wastewater by adsorption on white Iraqi kaolin clay**  
*J. Univ. Babylon Pure Appl. Sci 7, 1947-1956, 2014 | 2014 | Cited: 7*
34. **Adsorption of Reactive Red 2 dye onto activated carbon prepared from hazelnut shells**  
*Iraqi Natl J Chem 51, 273-287, 2013 | 2013 | Cited: 11*
35. **Adsorption of cobalamin onto synthesized carbon nanotubes (CNT)**  
*Journal of Applicable Chemistry 2, 589-604, 2013 | 2013 | Cited: 11*
36. **Adsorption of Reactive Red 2 dye onto activated carbon prepared from hazelnut shells**  
*Iraqi National Journal of chemistry 13 (51), 273-387, 2013 | 2013 | Cited: 11*
37. **Adsorption of disperse blue dye on Iraqi date palm seeds activated carbon.**  
*International Journal of Chemical Sciences 11 (3), 1219-1233, 2013 | 2013 | Cited: 36*
38. **Adsorption Study For Removal Of Rhodamine 6G From Aqueous Solutions By Using Iraqi Attapulgit And Flint Clays**  
*Journal of Babylon University/Pure and Applied Sciences 21 (5), 1854-1862, 2013 | 2013 | Cited: 3*
39. **Adsorption of cobalamin onto synthesized carbon nanotubes (CNT)**  
*Journal of Applicable Chemistry 2 (3), 589-604, 2013 | 2013 | Cited: 12*
40. **Adsorption of disperse blue dye on Iraqi date palm seeds activated carbon.**  
*2013 | Cited: 39*
41. **Journal of Applicable Chemistry**  
*Journal of Applicable Chemistry 2 (3), 589-604, 2013 | 2013*
42. **Evaluation of the potential of using Attapulgit clay as adsorbent for removal of P-chloroaniline (PCA) from aqueous solutions**  
*Journal of University of Babylon 22 (1), 2012 | 2012 | Cited: 1*
43. **Evaluation of the potential of using Attapulgit clay as adsorbent for removal of P-chloroaniline (PCA) from aqueous solutions**  
*Journal of University of Babylon 22 (1), 454-463, 2012 | 2012 | Cited: 2*
44. **man" u 791549 and M**  
*Transport 247, 263, 0 | 0*
45. **man" u 791549 and M**  
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