

## CURRICULUM VITAE

### PERSONAL DATA

<b>Name</b>	Ehab Abdelhamed Abdelrahman Ahmed
<b>Nationality</b>	Egyptian
<b>Position</b>	Associate professor-Chemistry Department- College of Science- Imam Mohammad Ibn Saud Islamic University, Saudi Arabia
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### EDUCATION

Year	Academic Degree	Institution
2007	Bachelor of Science (Chemistry, Excellent with honor degree)	Chemistry Department, Faculty of Science, Benha University, Egypt
2011	Master of Analytical Chemistry	Chemistry Department, Faculty of Science, Benha University, Egypt
2016	Ph.D. of Inorganic Chemistry	Chemistry Department, Faculty of Science, Benha University, Egypt

### WORK EXPERIENCE

Period	Position	Address
2008	Teaching Assistant	Chemistry Department, Faculty of Science, Benha University, Egypt
2011	Assistant Lecturer	Chemistry Department, Faculty of Science, Benha University, Egypt
2016	Assistant professor	Chemistry Department, Faculty of Science, Benha University, Egypt
2021	Associate professor	Chemistry Department, Faculty of Science, Benha University, Egypt
2021	Associate professor	Chemistry Department- College of Science- Imam Mohammad Ibn Saud Islamic University, Saudi Arabia

## RESEARCH INTERESTS

- 1- Synthesis of novel metal complexes for studying their biological, antitumor, and catalytic properties.
- 2- Synthesis of nanostructures and their polymeric composites for water treatment, hydrogen production, and catalysis of reactions.
- 3- Utilization of wastes for the fabrication of some nanostructures for water treatment.
- 4- Development of adsorption technique for the efficient removal of heavy metals and organic pollutants from aqueous media and wastewater.
- 5- Development of photocatalytic degradation technique for the efficient removal of organic pollutants from aqueous media and wastewater.
- 6- Development of analytical procedures for the determination of drugs and heavy metals in real samples.

## PUBLICATIONS

1. El-Reash, Y.G.A.; Ghaith, E.A.; El-Awady, O.; Algethami, F.K.; Lin, H.; Abdelrahman, E.A.; Awad, F.S. Highly Fluorescent Hydroxyl Groups Functionalized Graphitic Carbon Nitride for Ultrasensitive and Selective Determination of Mercury Ions in Water and Fish Samples. *J. Anal. Sci. Technol.* **2023**, *14*, doi:10.1186/s40543-023-00379-0.
2. Al-wasidi, A.S.; Basha, M.T.; Alghanmi, R.M.; Al-farraj, E.S.; Abdelrahman, E.A. Functionalization of Sodium Magnesium Silicate Hydroxide / Sodium Magnesium Silicate Hydrate Nanostructures Using 2, 3-Dihydroxybenzaldehyde as a Novel Nanocomposite for the Efficient Removal of Cd ( II ) and Cu ( II ) Ions from Aqueous Media. **2023**.
3. Zaman, U.; Rehman, K. ur; Khan, S.U.; Badshah, S.; Hosny, K.M.; Alghamdi, M.A.; Hmid, H.K.; Alissa, M.; Bukhary, D.M.; Abdelrahman, E.A. Production, Optimization, and Purification of Alkaline Thermotolerant Protease from Newly Isolated Phalaris Minor Seeds. *Int. J. Biol. Macromol.* **2023**, *233*, 123544, doi:10.1016/j.ijbiomac.2023.123544.
4. Al-Wasidi, A.S.; Saad, F.A.; Munshi, A.M.; Abdelrahman, E.A. Facile Synthesis and Characterization of Magnesium and Manganese Mixed Oxides for the Efficient Removal of Tartrazine Dye from Aqueous Media. *RSC Adv.* **2023**, *13*, 5656–5666, doi:10.1039/d3ra00143a.
5. Al, A.S.; Maram, W.; Reem, T.B.; Eida, M.A.; Farraj, S. Al; Abdelrahman, E.A. Facile Synthesis and Characterization of Sodium Magnesium Silicate Hydrate / Sodium Magnesium Silicate Hydroxide as Novel Nanostructures for the Efficient Removal of Methylene Blue Dye from Aqueous Media. *J. Inorg. Organomet. Polym. Mater.* **2023**, doi:10.1007/s10904-023-02554-7.
6. Al-Wasidi, A.S.; Almehezia, A.A.; Naglah, A.M.; Alkahtani, H.M.; Algethami, F.K.; Al-Farraj, E.S.; Basha, M.T.; Abdelrahman, E.A. Facile Synthesis and Characterisation of Mn<sub>0.5</sub>Zn<sub>0.5</sub>Fe<sub>2</sub>O<sub>4</sub>/Fe<sub>2</sub>O<sub>3</sub> as a Novel Nanocomposite for Studying Analytical Parameters Affecting on Photocatalytic Degradation of Basic Fuchsin Dye. *Int. J. Environ. Anal. Chem.* **2022**, *00*, 1–20, doi:10.1080/03067319.2022.2153044.
7. Almehezia, A.A.; Al-Omar, M.A.; Naglah, A.M.; Hegazey, R.M.; Al-Wasidi, A.S.; Katouah, H.A.; Basha, M.T.; Alghanmi, R.M.; Khedr, A.M.; Algethami, F.K.; Abdelrahman, E.A. Facile Synthesis of Copper Carbonate/Cobalt Carbonate/Manganese Carbonate and Copper Oxide/Cobalt Manganese Oxide/Manganese Oxide as Novel Nanocomposites for Efficient Photocatalytic Degradation of Crystal Violet Dye. *Int. J. Environ. Anal. Chem.* **2022**, *00*, 1–21, doi:10.1080/03067319.2022.2121164.
8. Abdelrahman, E.A.; Hegazey, R.M.; Ismail, S.H.; El-Feky, H.H.; Khedr, A.M.; Khairy, M.; Ammar, A.M. Facile

Synthesis and Characterization of  $\beta$ -Cobalt Hydroxide/Hydrohausmannite/Ramsdellite/Spertiniite and Tenorite/Cobalt Manganese Oxide/Manganese Oxide as Novel Nanocomposites for Efficient Photocatalytic Degradation of Methylene Blue Dye. Arab. J. Chem. 2022, 15, 104372, doi:10.1016/j.arabjc.2022.104372.

9. Abdelrahman, E.A.; Al-Farraj, E.S. Facile Synthesis and Characterizations of Mixed Metal Oxide Nanoparticles for the Efficient Photocatalytic Degradation of Rhodamine B and Congo Red Dyes. Nanomaterials 2022, 12, 3992, doi:10.3390/nano12223992.

10. Abdelghany, M.M.; Ahmed, I.S.; Dessouki, H.A.; Abdelrahman, E.A. Facile Synthesis of CuO and Ag Nanoparticles by Thermal Decomposition of Novel Schiff Base Complexes. J. Inorg. Organomet. Polym. Mater. 2021, doi:10.1007/s10904-021-02032-y.

11. Abdelbaset, H.S.; Shama, S.A.; Hegazey, R.M.; Abdelrahman, E.A. Utilisation of Wastes for Low-Cost Synthesis of Chitosan Composites with Nanosized Sodium Aluminium Silicate Hydrate and Geopolymer/Zeolite A for the Removal of Hg(II) and Pb(II) Ions from Aqueous Media. Int. J. Environ. Anal. Chem. 2020, 00, 1–19, doi:10.1080/03067319.2020.1855336.

12. Abdelrahman, E.A.; Subaihi, A. Application of Geopolymers Modified with Chitosan as Novel Composites for Efficient Removal of Hg(II), Cd(II), and Pb(II) Ions from Aqueous Media. J. Inorg. Organomet. Polym. Mater. 2020, 30, 2440–2463, doi:10.1007/s10904-019-01380-0.

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14. Abdelrahman, E.A.; Alharbi, A.; Subaihi, A.; Hameed, A.M.; Almutairi, M.A.; Algethami, F.K.; Youssef, H.M. Facile Fabrication of Novel Analcime/Sodium Aluminum Silicate Hydrate and Zeolite Y/Faujasite Mesoporous Nanocomposites for Efficient Removal of Cu(II) and Pb(II) Ions from Aqueous Media. J. Mater. Res. Technol. 2020, 9, 7900–7914, doi:10.1016/j.jmrt.2020.05.052.

15. Hameed, A.M.; Alharbi, A.; Abdelrahman, E.A.; Mabrouk, E.M.; Hegazey, R.M.; Algethami, F.K.; Al-Ghamdi, Y.O.; Youssef, H.M. Facile Hydrothermal Fabrication of Analcime and Zeolite X for Efficient Removal of Cd(II) Ions From Aqueous Media and Polluted Water. J. Inorg. Organomet. Polym. Mater. 2020, doi:10.1007/s10904-020-01565-y.

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17. Hegazey, R.M.; Abdelrahman, E.A.; Kotp, Y.H.; Hameed, A.M.; Subaihi, A. Facile Fabrication of Hematite Nanoparticles from Egyptian Insecticide Cans for Efficient Photocatalytic Degradation of Rhodamine B Dye. J. Mater. Res. Technol. 2020, 9, 1652–1661, doi:10.1016/j.jmrt.2019.11.090.

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20. Abdelrahman, E.A.; Hegazey, R.M. Facile Synthesis of HgO Nanoparticles Using Hydrothermal Method for Efficient Photocatalytic Degradation of Crystal Violet Dye Under UV and Sunlight Irradiation. *J. Inorg. Organomet. Polym. Mater.* 2019, 29, doi:10.1007/s10904-018-1005-6.
21. Nassar, M.Y.; Abdelrahman, E.A.; Aly, A.A.; Mohamed, T.Y. A Facile Synthesis of Mordenite Zeolite Nanostructures for Efficient Bleaching of Crude Soybean Oil and Removal of Methylene Blue Dye from Aqueous Media. *J. Mol. Liq.* 2017, 248, 302–313, doi:10.1016/j.molliq.2017.10.061.
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24. Khalifa, M.E.; Abdelrahman, E.A.; Hassanien, M.M.; Ibrahim, W.A. Application of Mesoporous Silica Nanoparticles Modified with Dibenzoylmethane as a Novel Composite for Efficient Removal of Cd(II), Hg(II), and Cu(II) Ions from Aqueous Media. *J. Inorg. Organomet. Polym. Mater.* 2020, 30, 2182–2196, doi:10.1007/s10904-019-01384-w.
25. Abdelrahman, E.A.; Hegazey, R.M.; El-Azabawy, R.E. Efficient Removal of Methylene Blue Dye from Aqueous Media Using Fe/Si, Cr/Si, Ni/Si, and Zn/Si Amorphous Novel Adsorbents. *J. Mater. Res. Technol.* 2019, 8, 5301–5313, doi:10.1016/j.jmrt.2019.08.051.
26. Abdelrahman, E.A.; Hegazey, R.M.; Kotp, Y.H.; Alharbi, A. Facile Synthesis of Fe<sub>2</sub>O<sub>3</sub> Nanoparticles from Egyptian Insecticide Cans for Efficient Photocatalytic Degradation of Methylene Blue and Crystal Violet Dyes. *Spectrochim. Acta Part A Mol. Biomol. Spectrosc.* 2019, 222, 117195, doi:10.1016/j.saa.2019.117195.
27. Abdelrahman, E.A.; Hegazey, R.M. Exploitation of Egyptian Insecticide Cans in the Fabrication of Si/Fe Nanostructures and Their Chitosan Polymer Composites for the Removal of Ni(II), Cu(II), and Zn(II) Ions from Aqueous Solutions. *Compos. Part B Eng.* 2019, 166, 382–400, doi:10.1016/j.compositesb.2019.02.027.
28. Abdelrahman, E.A.; Hegazey, R.M. Utilization of Waste Aluminum Cans in the Fabrication of Hydroxysodalite Nanoparticles and Their Chitosan Biopolymer Composites for the Removal of Ni(II) and Pb(II) Ions from Aqueous Solutions: Kinetic, Equilibrium, and Reusability Studies. *Microchem. J.* 2019, 145, 18–25, doi:10.1016/j.microc.2018.10.016.
29. Abdelrahman, E.A.; Tolan, D.A.; Nassar, M.Y. A Tunable Template-Assisted Hydrothermal Synthesis of Hydroxysodalite Zeolite Nanoparticles Using Various Aliphatic Organic Acids for the Removal of Zinc(II) Ions from Aqueous Media. *J. Inorg. Organomet. Polym. Mater.* 2019, 29, doi:10.1007/s10904-018-0982-9.
30. Abdelrahman, E.A. Synthesis of Zeolite Nanostructures from Waste Aluminum Cans for Efficient Removal of Malachite Green Dye from Aqueous Media. *J. Mol. Liq.* 2018, 253, 72–82, doi:10.1016/j.molliq.2018.01.038.
31. Nassar, M.Y.; Aly, H.M.; Moustafa, M.E.; Abdelrahman, E.A. Synthesis, Characterization and Biological Activity of New 3-Substitued-4-Amino-5-Hydrazino-1,2,4-Triazole Schiff Bases and Their Cu(II) Complexes: A New Approach to CuO Nanoparticles for Photocatalytic Degradation of Methylene Blue Dye. *J. Inorg. Organomet. Polym. Mater.* 2017, 27, 1220–1233, doi:10.1007/s10904-017-0569-x.
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37. Al-Wasidi, A.S.; Naglah, A.M.; Saad, F.A.; Abdelrahman, E.A. Modification of Sodium Aluminum Silicate Hydrate by Thioglycolic Acid as a New Composite Capable of Removing and Preconcentrating Pb(II), Cu(II), and Zn(II) Ions from Food and Water Samples. *Arab. J. Chem.* 2022, 15, 104178, doi:10.1016/j.arabjc.2022.104178.

38. Gad, H.M.; Rayes, S.M. ElRayes; Abdelrahman, E.A. Modification of silica nanoparticles by 2,4-dihydroxybenzaldehyde and 5- bromosalicylaldehyde as new nanocomposites for efficient removal and preconcentration of Cu(II) and Cd(II) ions from water, blood, and fish muscles. *RSC Adv.* 2022, 19209–19224, doi:10.1039/d2ra03177a.

39. Al-Wasidi, A.S.; AlSalem, H.S.; Alshalawi, A.F.; Naglah, A.M.; Al-Anwar, A.; Abdelrahman, E.A. Facile Synthesis of a Novel Nanocomposite for Determination of Mercury and Copper Ions in Food and Water Samples. *Arab. J. Chem.* 2022, 15, 104113, doi:10.1016/j.arabjc.2022.104113.

40. Al-Wasidi, A.S.; Naglah, A.M.; Saad, F.A.; Abdelrahman, E.A. Modification of Silica Nanoparticles with 1-Hydroxy-2-Acetonaphthone as a Novel Composite for the Efficient Removal of Ni(II), Cu(II), Zn(II), and Hg(II) Ions from Aqueous Media. *Arab. J. Chem.* 2022, 15, 104010, doi:10.1016/j.arabjc.2022.104010.

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