

AHMED MOHAMED OMAR MOHAMED



ASSOCIATE PROFESSOR

(H-INDEX: 38) - (PUBLICATIONS: 113)

PERSONAL INFORMATION	Full Name: Affiliations: Address: E-mail:	Ahmed Mohamed Omar Mohamed Associate professor: Polymer Institute, Slovak Academy of Science Dúbravská cesta 9, 845 41 Bratislava, Slovakia upolahom@savba.sk aomar@srtacity.sci.eg ahmedomer_81@yahoo.com
EDUCATION		<ul style="list-style-type: none">• Ph.D.; Applied physical chemistry (Polymers Science); 2013 Faculty of science – Alazhar University- Egypt.• M.Sc.; Applied chemistry (Polymers Science); 2008 Faculty of science – Alazhar University- Egypt.• B.Sc.; Special chemistry; 2003 Faculty of science – Alazhar University- Egypt.
Work Experience		<ul style="list-style-type: none">• Organization: City of Scientific Research and technological applications (SRTA-City) Position held: Associate professor Institute : Advanced technology and new materials research institute Department : Polymer research department Starting date: 1/2019 End date: till now-----• Organization: City of Scientific Research and technological applications (SRTA-City) Position held: Assistant professor Institute : Advanced technology and new material institute

	<ul style="list-style-type: none"> • Department : Polymer research department • Starting date: 12/2013 End date: 12-2018 <hr/> <ul style="list-style-type: none"> • Organization: National Organization For Drug Control And Research (NODCAR): Egypt. -Position held: Assistant researcher -Starting date : 4/2009 End date:9/2012 <hr/> <ul style="list-style-type: none"> • Organization: City For Scientific Research and technology applications -Position held: Fellowship For Master degree -Title of the project: Preparation and Characterization of Graft Copolymer Hydrogels to be Used as Soil Conditioners. -Starting date: 3/2005 End date:3/2008
<p>POSTDOCTORAL FELLOWS</p>	<ul style="list-style-type: none"> • Postdoc fellowship: Polymer institute; Slovak academy of science; Slovak Republic 2022-2023 • Postdoc fellowship; The University of Queensland; Australia; 2019. • Postdoc fellowship; School of Food and Pharmacy, Zhejiang Ocean University; China; 2017.
<p>TEACHING ACTIVITIES</p>	<ul style="list-style-type: none"> • Postdoc fellowship; Institute of polymer; Bulgarian Academy of Sciences; Bulgaria; 2014. • Postdoc fellowship; Institute of Experimental pharmacology and toxicology; Slovak Academy of Sciences; Slovak Republic; 2014. <hr/> <p>- Lecturer at The school of Food and Pharmacy, Zhejiang Ocean University, China (2016-2017) Courses: Polymer chemistry, Physical and analytical chemistry</p>
<p>CONFERENCES</p>	<p>- Lecturer: Faculty of Education - Alexandria University, Egypt. (2020-2021) (2021-2022): Courses: Physical Chemistry (Ch 231), Stereochemistry.</p> <hr/> <ol style="list-style-type: none"> 1. ICNHBAS 2021, faculty of science, Al-Azhar University, 26-29 September 2021. 2. Drug Delivery Australia 2019 Conference. School of Pharmacy, The University of Queensland, Brisbane, Australia, (18, 19 November, 2019). 3. International conference on environment and natural science (ICENS). Beijing, China (15-16 July, 2018). 4. The 17 th Arab International Conference on Materials Science " Materials for Novel Applications" 18-20 December (2017), Alexandria, Egypt. 5. The 4th International Conference of pharmaceutical and drug industries research division, Research and development in drug industry in line with the sustainable development of goals of Egypt vision 2030. Cairo. Egypt. (23-24: 2017).

Workshops

6. 12th Arab international conference on polymer science and technology 26-29 October Luxor; Egypt. (2015).
 7. The 4th International Scientific Conference Applied Natural Sciences. Nový Smokovec, High Tatras. Slovakia (2013).
 8. 5th International Symposium of Surface and Interface of Biomaterials held in conjunction with The 24th Annual Conference of the Australasian Society for Biomaterials and Tissue Engineering (ASBTE), Sydney, Australia; 04/2015.
 9. The 8th International Scientific Conference Environment, Development, Bioinformatics, Faculty of Science, Al-Azhar University (26-28 March 2012), Cairo, Egypt.
 10. The Second international conference for Applications of Biotechnology) 17th-18th October 2009, Faculty of Biotechnology, October University for Modern Sciences and Arts and University of Greenwich, 6 October. Egypt.
 11. The First international conference for Applications of Biotechnology) 18th -19th October 2008, Faculty of Biotechnology, October University for Modern Sciences and Arts and University of Greenwich, Egypt.
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1. **Water management:** Future challenges and opportunities, workshop at SRTA-City, November 2021.
 2. The International **Nanotechnology Summit**; The British University in Egypt (BUE); Nanotechnology Research Center (NTRC); (March 14, 2018).
 3. Different type of electronic microscope components and their importance in analyzing different samples in various scientific fields in professional ways; City of scientific research and technological applications, (SRTA City); Alexandria, Egypt. April 2018).
 4. Electrospinning Technique: From Fundamental into **Nanotechnological** Applications. City of scientific research and technological applications, (SRTA City) in cooperation with Arab Center for Nanotechnology. (10 April 2018).
 5. Recent Advances in Pharmaceutical Technology from Development to Patency; Pharmaceutical Technology Department (NRC; Egypt; October, 24, 2017).
 6. Workshop on Recent Advances in Pharmaceutical Technology From Development to Patency, 24 October, 2017, Cairo, Egypt.
 7. **Nanotechnology** and its Biological applications workshop; City of scientific research and technological applications, (SRTA City); Alexandria, Egypt (20 April, 2015).
 8. The 7th Workshop on Ubiquitous Computing and Intelligence Information: Challenges and Solutions), July 21, 2008. City for scientific research and technological application, Alexandria, Egypt.
 9. Attending The 1st General Assembly Meeting of the North Africa and Middle East Science center's network (NAMES))2, 3 November 2008 held in Bibliotheca Alexandrina, Alexandria, Egypt.
 10. Attending the second EMUNI Research Souk,. The Euro-Mediterranean Student Research Multi-conference. 14 June 2010, Alexandria University, Egypt.
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<p>Trainings</p>	<p>(2019-2020): Successful Pass training courses: The University of Queensland; Australia;2019</p> <p><u>1</u>-Laboratory Safety- <u>2</u>-Chemical Safety- <u>3</u>- Fieldwork Safety –</p> <p><u>4</u>- Biosafety Training- <u>5</u>- Health Safety and Wellness Induction-</p> <p><u>6</u>- Annual Fire Safety Training-</p> <p><u>7</u>- Computer Work stations (Design/Adjustment)-</p> <p><u>8</u>- Hand Tool Safety Assessment-</p> <p><u>9</u>- Biosecurity Safety and Compliance-</p> <p><u>10</u>- Privacy Assessment –</p> <p><u>11</u>- Code of Conduct Assessment-</p> <p><u>12</u>- Sustainability General Assessment-</p> <p><u>13</u>- Fraud and Corruption Assessment.</p> <p>-----</p> <ul style="list-style-type: none"> • Attending training Course of (QMS ISO 9001:2008 Documentation and Implementation, 5-7 February 2012) from Engineering and Quality Experts Company, Egypt & NODCAR; Egypt. • Attending training Course of (QMS ISO 9001:2008 Awareness) from Engineering and Quality Experts Company, Egypt & NODCAR; Egypt. • Attending training Course of (QMS ISO 9001:2008 Internal Audit) from Engineering and Quality Experts Company, Egypt & NODCAR; Egypt.
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11. **Water management:** Future challenges and opportunities, workshop at SRTA-City, November 2021.
12. The International **Nanotechnology Summit**; The British University in Egypt (BUE); Nanotechnology Research Center (NTRC); (March 14, 2018).
13. Different type of electronic microscope components and their importance in analyzing different samples in various scientific fields in professional ways; City of scientific research and technological applications, (SRTA City); Alexandria, Egypt. April 2018).
14. Electrospinning Technique: From Fundamental into **Nanotechnological** Applications. City of scientific research and technological applications, (SRTA City) in cooperation with Arab Center for Nanotechnology. (10 April 2018).
15. Recent Advances in Pharmaceutical Technology from Development to Patency; Pharmaceutical Technology Department (NRC; Egypt; October, 24, 2017).
16. Workshop on Recent Advances in Pharmaceutical Technology From Development to Patency, 24 October, 2017, Cairo, Egypt.
17. **Nanotechnology** and its Biological applications workshop; City of scientific research and technological applications, (SRTA City); Alexandria, Egypt (20 April, 2015).
18. The 7th Workshop on Ubiquitous Computing and Intelligence Information: Challenges and Solutions), July 21, 2008. City for scientific research and technological application, Alexandria, Egypt.
19. Attending The 1st General Assembly Meeting of the North Africa and Middle East Science center's network (NAMES))2, 3 November 2008 held in Bibliotheca Alexandrina, Alexandria, Egypt.
20. Attending the second EMUNI Research Souk,. The Euro-Mediterranean Student Research Multi-conference. 14 June 2010, Alexandria University, Egypt.

(2019-2020): Successful Pass training courses: The University of Queensland; Australia; **2019**

- 1-Laboratory Safety- 2-Chemical Safety- 3- Fieldwork Safety –
- 4- Biosafety Training- 5- Health Safety and Wellness Induction-
- 6- Annual Fire Safety Training-
- 7- Computer Work stations (Design/Adjustment)-
- 8- Hand Tool Safety Assessment-
- 9- Biosecurity Safety and Compliance-
- 10- Privacy Assessment –
- 11- Code of Conduct Assessment-
- 12- Sustainability General Assessment-
- 13- Fraud and Corruption Assessment.

Extra-curriculum Activities

Supervision 30 thesis

PhD thesis

- 1) Synthesis, characterization and biological properties of some quinolones derivatives. , PhD. in Department of Chemistry, Faculty of Science, Al- Azhar University. (Running 2021).
- 2) Advanced wound dressing based on gelatin biopolymer. PhD. in Department of Chemistry, Faculty of Science, Tanta University (Graduated 2020).
- 3) Development of Chitosan derivatives for advanced drug delivery and wound healing applications, PhD. in Department of Chemistry, Faculty of Science, Al- Azhar University. (Running 2020).
- 4) Preparation and characterization of modified chitosan hydrogel for drug delivery systems PhD. in Department of Chemistry, Faculty of Science, Alexandria University (Running 2019).
- 5) Preparation, physicochemical characterization and evaluation of modified chitosan biopolymer for wound dressing applications; PhD. in Department of Chemistry, Faculty of Science, Al- Azhar University (Running 2019).
- 6) Development of hydrogel biopolymers for smart drug delivery systems applications. PhD. in Department of Chemistry, Faculty of Science, Alexandria University (2019).
- 7) Synthesis and characterization of efficient adsorbents based-metal–organic frameworks (MOFs) for water treatment applications. PhD.; Faculty of Science, Alexandria University(Running 2019).
- 8) Development of natural Polymeric Materials for Removing Petroleum Oil Spills. PhD. in Department of Chemistry, Faculty of Engineering, Alexandria University (Graduated 2018)
- 9) .Development of Some Bio-based Graft Copolymers for Oil Spill Removal. PhD. in Department of Chemistry, Faculty of Science, Al- Azhar University (Graduated 2018).
- 10) Production of Keratin Particles Using Some Local Bacterial Isolates For Water Treatment. PhD.; Faculty of Science, Alexandria University(Running 2019).
- 11) Development of Polymer Polyelectrolyte Membranes for Direct Methanol Fuel Cell Application.PhD. Department of Chemistry, Faculty of Science, Ain- Shams University (Graduated 2017).
- 12) Develoment of magnetic iron oxide nanoparticles for heavy metal removal application. PhD. in Department of physics, Faculty of Science, Alexandria University (Graduated 2017)
- 13) Develoment of optical metal oxide nanoparticles for water organic pollutants purification. PhD. in Department of physics, Faculty of Science, Alexandria University (Graduated 2018)

M.Sc thesis (Supervision)

1. Development of polymeric drug carriers based on modified gelatin Hydrogel" in department of material science, institution of graduate studies and researches. (Graduated 2022).
2. Development of adsorbent polymers based on modified chitosan for water treatment applications M. Sc.in Department of Chemistry, Faculty of Science, Assiut branch, Al-Azhar University (Running 2021).
3. Development of chitosan composites for water treatment applications M. Sc.in Department of Chemistry, Faculty of Science, Al- Azhar University (Running 2021).
4. Development efficient antibacterial bio adsorbent based on modified chitosan for water treatment applications M. Sc.in Department of Chemistry, Faculty of Science, Al-Azhar University (Running 2021).
5. Development of adsorptive hydrogel polymers from modified carboxymethyl cellulose for water treatment applications. M. Sc.in Department of Chemistry, Faculty of Science, Alexandria University (Graduated 2020).
6. Preparation, characterization and evaluation of some polymeric composites as highly efficient adsorbents for water treatment applications. M. Sc.in Department of Chemistry, Faculty of Science, Al- Azhar University (Running 2020).
7. Preparation, characterization and evaluation of Novel polymeric microcapsules as Smart drug delivery systems. M. Sc.in Department of Chemistry, Faculty of Science, Al- Azhar University (Graduated 2019).
8. Development of chemically modified chitosan membranes for bio-medical applications, M. Sc, Faculty of Science, Al- Azhar University (Graduated 2019)
9. Preparation of three kinds of sodium alginate based beads adsorbent for the adsorption of heavy metals from aqueous solution. M. Sc. In **School of Food and Pharmacy, Zhejiang Ocean University**, Haida, Nan Road 1, Zhoushan, Zhejiang 316022, China (Graduated 2018).
10. Preparation of pH sensitive chitosan hydrogel microspheres for controlled drug delivery.. M. Sc. In **School of Food and Pharmacy, Zhejiang Ocean University**, Haida, Nan Road 1, Zhoushan, Zhejiang 316022, China (Graduated 2018).
11. Preparation of semi- interpenetrated polymers based PVA and poly 2-acrylamido-2-methylpropanesulfonic acid for dye removing applications M. Sc. in department of material science, institution of graduate studies and researches. (Graduated 2018).
12. Development of some novel polymeric hydrogels based on chitosan and carboxymethyl cellulose for industrial waste water treatment. M. Sc. in department of material science, institution of graduate studies and researches.(Graduated 2018).
13. Development of polymeric hydrogel beads for heavy metals removal from aqueous solutions, M. Sc. in department of material science, institution of graduate studies and researches.(Graduated 2018).
14. Development of crosslinked modified Poly (Vinyl Alcohol for biomedical

applications. M. Sc.in Department of Chemistry, Faculty of Science, Alexandria University (Graduated 2016).

15. Preparation and characterization of oil sorptive materials based on polypropylene for petroleum oil spill removal. M. Sc. in department of material science, institution of graduate studies and researches. (Graduated 2016).
16. Preparation, characterization and evaluation of modified polymeric membranes for anti-bacterial and anti-inflammatory wound dressing applications. M. Sc.in Department of Chemistry, Faculty of Science, Al- Azhar University (Running 2017).
17. Development of polymeric flocculants based on modified carboxymethyl cellulose for water purification applications. M. Sc, Faculty of Science, Damnhour University (Running 2017).

Editorial Board

1. **Guest Editor** for the special issue "Bioactive Nanomaterials for Modern Biotechnological Applications" **Nanomaterials**; MDPI, 2022, in processing.
2. **Gest Editor** for the special issue “Nanomaterials for Advanced Biomedical Applications “, **Molecules**; MDPI. 2022.
3. **Guest Editor** for the special issue **Molecules**: MDPI; Polymers Based Materials for Water Treatment. 2022
4. **Guest Editor Molecules**: MDPI for the special issue Polymers: Polymer-Based Materials for Oil Spill Recovery and Management.
5. **Guest Editor Frontiers in Materials** Drug delivert carriers and wound dressing based on biological macromolecules. 2022.
6. **Editorial Board Member in Frontiers in Materials “polymers and composites”**.
7. **Editorial Member in Nano and Micro system**; Bentham Science; 2021.

Reviewer in peer-reviewed journals

- 1- ACS Applied Materials & Interfaces (American Chemical Society Publisher).
- 2- ACS sustainable and engineering chemistry (American Chemical Society Publisher).
- 3- International Journal of Pharmaceutics.
- 4- Biotechnology reports (Elsevier).
- 5- International Journal of Biological Macromolecules (Elsevier).
- 6- Reactive and Functional Polymers (Elsevier).
- 7- Scientific Reports; Springer-Nature.
- 8- Pharmaceutics (MDPI).

	<p>9- ACS Omega, (American Chemical Society Publisher). 10- Surfaces and Interfaces. 11- Arabian Journal of Chemistry. 12- Journal of Polymer Engineering. 13- Chemical Engineering Communications. 14- Polymer Bulletin. 15- Journal of Cleaner Production (Elsevier) 16- Environmental Nanotechnology, Monitoring & Management (Elsevier). 17- Desalination and water treatment (Taylor&Francis). 18- International Journal of Energy Research (Wiley Online Library). 19- Journal of applied pharmaceutical science (MediPoeia). 20- Adsorption Science and Technology (SAGE Publications Inc.). 21- Egyptian Journal of Chemistry. (ISSN :2357-0245). 22- Journal of Materials Research and Technology. 23- Saudi journal of chemical society.</p>
<p>GRANTS & AWARDS</p>	<p><u>Grants</u></p> <p>1-Principal investigator: Construction of smart polymeric composite systems for controlled and targeted drug delivery; SASPRO2 project no: 1381/03/02. (2022-2024). Polymer institute; Slovak academy of science; Slovak Republic.</p> <p>Academic supervisor: project: 45034" Preparation and characterization of modified chitosan hydrogel for drug delivery applications. (STDF-STF);Egypt (2021-2022).</p> <p>2-Principal investigator (PI); Development of smart superabsorbent polymeric hydrogels as conditioners for sandy soil; ID: 25984-STDF Basic & Applied Research Grants (STDF-BARG); Egypt (2019-2021).</p> <p>3- Principal investigator (PI); Development of polymeric nanocapsules for drug delivery applications; ID: 25398-Capacity Building Grants -(STDF-STF);Egypt (2019-2021).</p> <p>3- Member: Collection of multi-drug resistant bacteria from Low- and Middle- Income Countries (2021-2022); The University of Queensland; Australia.</p> <p>4-Co-Principal investigator ; Development of antimicrobial polymeric membranes based on gelatin for wound healing management; (STDF), Research Support & Technology Development Grant (RSTDG); Egypt (2018-2020).</p> <p>5-Member: New phosphorylated alginate-chitosan polyelectrolyte complex for bone regeneration and drug delivery systems; Egyptian-Bulgarian project</p>

	<p>(2015-2017).</p> <p>6-Member: Development of polymer electrolyte membranes for direct methanol fuel cell application. (STDF), basic applied research program. Egypt.2016-2018.</p> <p>Awards</p> <ol style="list-style-type: none"> 1- World's Top 2% of scientist by Stanford university, 2022 2- Scientific achievement award; -City of scientific research and technological applications, (SRTA- City); Alexandria, 2014, Egypt. 3- TYSP Award for Young Talented Program 2017. China
<p>H-INDEX /CITATION</p>	<p>38(SCOPUS) – 113 SCI Publications</p>
<p>LIST OF PUBLICATIONS</p>	<p>2023</p> <ol style="list-style-type: none"> 1- Omer, A.M., Eltaweil, A.S., El-Fakharany, E.M. et al. Novel Cytocompatible Chitosan Schiff Base Derivative as a Potent Antibacterial, Antidiabetic, and Anticancer Agent. Arab J Sci Eng (2023). https://doi.org/10.1007/s13369-022-07588-6 2- Hassan MA, Tamer TM, Omer AM, Baset WMA, Abbas E, Mohy-Eldin MS. Therapeutic potential of two formulated novel chitosan derivatives with prominent antimicrobial activities against virulent microorganisms and safe profiles toward fibroblast cells. International Journal of Pharmaceutics. 2023 Mar 5;634:122649 3- Abdelazeem S. Eltaweil, Maha S. Ahmed, Gehan M. El-Subruiti, Randa E. Khalifa, Ahmed M. Omer, Efficient loading and delivery of ciprofloxacin by smart alginate/carboxylated graphene oxide/aminated chitosan composite microbeads: in vitro release and kinetic studies, Arabian Journal of Chemistry, 2023, 104533, https://doi.org/10.1016/j.arabjc.2022.104533. 4- Omer, A.M., Tamer, T.M., Hassan, M.E., ...Eltaweil, A.S., Mohy Eldin, M.S.. Fabrication of Grafted Carboxymethyl Cellulose Superabsorbent Hydrogel for Water Retention and Sustained Release of Ethephon in Sandy Soil. Arabian Journal for Science and Engineering, , 2023, 48(1), pp. 561–572. 5- Omer, A.M., Garhy G, Abd El-Monaem, E.M , El-Subruiti, G.M ,Eltaweil, A.S Construction of efficient Ni-FeLDH@MWCNT@Cellulose acetate floatable microbeads for Cr(VI) removal: Performance and mechanism. Carbohydrate polymers, 2023 6- Abd El-Monaem, E.M., Ayoup, M.S., Omer, A.M., Hammad, E.N., Eltaweil,

- A.S.Sandwich-like construction of a new aminated chitosan Schiff base for efficient removal of Congo red. *Applied Water Science*, 2023, 13(2), 67.
- 7- Abdelazeem S. Eltaweil, Karim Ibrahim, Eman M. Abd El-Monaem, Gehan M. El-Subruiti, **Ahmed M. Omer**, Phosphate removal by Lanthanum-doped aminated graphene oxide@aminated chitosan microspheres: Insights into the adsorption mechanism, *Journal of Cleaner Production*, Volume 385, 2023, 135640,
- 8- Abd El-Monaem, E.M., Eltaweil, A.S., El-Subruiti, G.M., Mohy-Eldin, M.S., Omer, A.M.Adsorption of nitrophenol onto a novel Fe₃O₄-κ-carrageenan/MIL-125(Ti) composite: process optimization, isotherms, kinetics, and mechanism. *Environmental Science and Pollution Research*, 2023.
- 9- Shalaby, A.A.; Aziz, A.N.; Špitalský, Z.; **Omer, A.M.**; Mohy-Eldin, M.S.; Khalifa, R.E. An Effective Methanol-Blocking Cation Exchange Membrane Modified with Graphene Oxide Nanosheet for Direct Methanol Fuel Cells. *Processes* 2023, 11, 353. <https://doi.org/10.3390/pr11020353>

2022

- 10- **Omer, A.M.**, Abd El-Monaem, E.M., Eltaweil, A.S. Novel reusable amine-functionalized cellulose acetate beads impregnated aminated graphene oxide for adsorptive removal of hexavalent chromium ions. *International Journal of Biological Macromolecules*, 2022, 208, pp. 925–934.
- 11- El-Aassar, M.R., Tamer, T.M., El-Sayed, M.Y., ...Rabhy, O.O., Mohy-Eldin, M.S. Development of Azo Dye Immobilized Sulfonated Poly (Glycidyl Methacrylate) Polymer Composite as Novel Adsorbents for Water Treatment Applications: Methylene Blue Immobilization Isotherm, Kinetic, Thermodynamic, and Simulations Studies. *Molecules*, 2022, 27(23), 8418
- 12- El-Aassar, M.R., Tamer, T.M., El-Sayed, M.Y., . **Omer, A.M.**,..Alruwaili, M.S., Mohy-Eldin, M.S.. Development of Azo Dye Immobilized Poly (Glycidyl Methacrylate-Co-Methyl Methacrylate) Polymers Composites as Novel Adsorbents for Water Treatment Applications: Methylene Blue-Polymers Composites. *Polymers*, 2022, 14(21), 4672.
- 13- Elmaghraby, N.A., **Omer, A.M.**, Kenawy, ER. et al. Composite nanofiber formation using a mixture of cellulose acetate and activated carbon for oil spill treatment. *Environ Sci Pollut Res* (2022). <https://doi.org/10.1007/s11356-022-24982-7>
- 14- Gomaa, H., Abd El-Monaem, E.M., Eltaweil, A.S., **Omer, A.M.** Efficient removal of noxious methylene blue and crystal violet dyes at neutral conditions by reusable montmorillonite/NiFe₂O₄@amine-functionalized chitosan composite. *Scientific Reports*, 2022, 12(1), 15499.
- 15- Abou Alsoaud, M.M., Taher, M.A., Hamed, A.M., Elnouby, M.S., **Omer, A.M.** Reusable kaolin impregnated aminated chitosan composite beads for efficient removal of Congo red dye: isotherms, kinetics and thermodynamics studies. *Scientific Reports*, 2022, 12(1), 12972.

- 16- Basha, I.K., Abd El-Monaem, E.M., Khalifa, R.E., **Omer, A.M.**, Eltaweil, A.S. Sulfonated graphene oxide impregnated cellulose acetate floated beads for adsorption of methylene blue dye: optimization using response surface methodology. *Scientific Reports*, 2022, 12(1), 9339.
- 17- Abd El-Monaem, E.M., **Omer, A.M.**, Khalifa, R.E., Eltaweil, A.S. Floatable cellulose acetate beads embedded with flower-like zwitterionic binary MOF/PDA for efficient removal of tetracycline. *Journal of Colloid and Interface Science*, 2022, 620, pp. 333–345.
- 18- Elmetwaly, T.E., Darwish, S.S., Attia, N.F., **Omer, A.M.**..El-Seedi, H.R., Elashery, S.E.A. Cellulose nanocrystals and its hybrid composite with inorganic nanotubes as green tool for historical paper conservation. *Progress in Organic Coatings*, 2022, 168, 106890.
- 19- Elmaghraby, N.A., **Omer, A.M.**, Kenawy, E.-R., Gaber, M., El Nemr, A. Electrospun composites nanofibers from cellulose acetate/carbon black as efficient adsorbents for heavy and light machine oil from aquatic environment. *Journal of the Iranian Chemical Society*, 2022, 19(7), pp. 3013–3027.
- 20- Elmaghraby, N.A., **Omer, A.M.**, Kenawy, E.-R., Gaber, M., El Nemr, A. Fabrication of cellulose acetate/cellulose nitrate/carbon black nanofiber composite for oil spill treatment. *Biomass Conversion and Biorefinery*, 2022
- 21- Abd El-Monaem, E.M., Eltaweil, A.S., Elshishini, H.M., ...El-Subruiti, G.M., **Omer, A.M.** Sustainable adsorptive removal of antibiotic residues by chitosan composites: An insight into current developments and future recommendations. *Arabian Journal of Chemistry*, 2022, 15(5), 103743.
- 22- Eweida, B.Y., Tamer, T.M., **Omer, A.M.**, ...Zaatot, A.A., Mohy-Eldin, M.S. Removal of oil spills by novel developed amphiphilic chitosan-g-citronellal Schiff base polymer: kinetic, isotherm, and thermodynamic studies. *Desalination and Water Treatment*, 2022, 256, pp. 163–175.
- 23- Eltaweil, A.S., Abd El-Monaem, E.M., El-Subruiti, G.M., ...Abd El-Latif, M.M., **Omer, A.M.** Graphene oxide incorporated cellulose acetate beads for efficient removal of methylene blue dye; isotherms, kinetic, mechanism and co-existing ions studies. *Journal of Porous Materials*, 2022.
- 24- Eltaweil, A.S., Abd El-Monaem, E.M., Elshishini, H.M., ...Fawzy, M., **Omer, A.M.** Recent developments in alginate-based adsorbents for removing phosphate ions from wastewater: a review. *RSC Advances*, 2022, 12(13), pp. 8228–8248.
- 25- Hosny, M., Fawzy, M., El-Fakharany, E.M., . **Omer, A.M.**..Khalifa, R.E., Eltaweil, A.S. Biogenic synthesis, characterization, antimicrobial, antioxidant, antidiabetic, and catalytic applications of platinum nanoparticles synthesized from *Polygonum salicifolium* leaves. *Journal of Environmental Chemical Engineering*, 2022, 10(1), 106806
- 26- **Ahmed M. Omer**, Rana Dey, Abdelazeem S. Eltaweil, Eman M. Abd El-Monaem, Zyta M. Ziora, Insights into recent advances of chitosan-based adsorbents for sustainable removal of heavy metals and anions, **Arabian Journal of Chemistry**, Volume 15, Issue 2, 2022, 103543.

- 27- Eman Abd El-Monaem, **Ahmed M. Omer**, El-Subruiti, G. Mohy-Eldin, M.S., Abdelazeem S. Eltaweil. Zero-valent iron supported-lemon derived biochar for ultra-fast adsorption of methylene blue. *Biomass Conversion and Biorefinery*, Accepted 1-2022.
- 28-Mohamed Hosny, Abdelazeem S. Eltaweil, Mohamed Mostafa, Yaser A. El-Badry, Enas E. Hussein, **Ahmed M. Omer**, Manal Fawzy. Facile Synthesis of Gold Nanoparticles for Anticancer, Antioxidant Applications, and Photocatalytic Degradation of Toxic Organic Pollutants. January 2022, *ACS Omega*. DOI: 10.1021/acsomega.1c06714
- 29-Mohamed Hosny, Manal Fawzy,; Esmail M. El-Fakharany,; **Ahmed M. Omer**, Eman Abd El-Monaem; Randa Khalifa. Biogenic synthesis, characterization, antimicrobial, antioxidant, and catalytic applications of synthesized platinum nanoparticles (PtNPs) from *Polygonum salicifolium* leaves. **Journal of Environmental Chemical Engineering** 10 (2022) 106806
- 30-Heba M. Ahmed, Samar Aboulhadeed, Randa E. Khalifa, **Ahmed Mohamed Omer**, Tamer M. Tamer , Mohamed S. Mohy Eldin . Chitosan Modifications for Azo-Dyes Removal from Wastewaters: Methyl Orange Dye Model. **2022**, *Desalination and Water Treatment*.
- 31-Randa E. Khalifa, Samar Aboulhadeed , Heba M. Ahmed , **Ahmed Mohamed Omer**, Tamer M. Tamer , Mohamed S. Mohy Eldin . Fabrication of a novel Chitosan Schiff bases hydrogel derivatives for the removal of anionic dyes from wastewater. **2022 Desalination and Water Treatment**.
- 32-Samar Aboulhadeed, Heba M. Ahmed , Randa E. Khalifa , Randa E. Khalifa, **Ahmed Mohamed Omer**, Tamer M. Tamer , Mohamed S. Mohy Eldin , Methyl Orange Dye Removal from Wastewater by Novel Developed Chitosan Schiff Bases, **April 2022**, *Desalination and Water Treatment*.

2021

- 33- **Omer, A.M.**, Abd El-Monaem, E.M., El-Subruiti, G.M. et al. Fabrication of easy separable and reusable MIL-125(Ti)/MIL-53(Fe) binary MOF/CNT/Alginate composite microbeads for tetracycline removal from water bodies. **Scientific Reports** 11, 23818 (2021). <https://doi.org/10.1038/s41598-021-03428-z>
- 34- **Ahmed Mohamed Omer**, Wagih Abdel-Alim Sadik, Abdel-Ghaffar Maghraby El-Demerdash, Heba Shawky Hassan, Formulation of pH-sensitive aminated chitosan-gelatin crosslinked hydrogel for oral drug delivery, **Journal of Saudi Chemical Society**, Volume 25, Issue 12, December 2021, 101384.
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