



YOUR NAME

CURRENT POSITION

<p><b>PERSONAL INFORMATION</b></p>	<p>Full Name: Affiliations: Address: Mobile No.: E-mail: Important links:</p>	<p><b>Ahmed Mohamed Omar Mohamed</b></p> <p><b>Associate professor</b> ; Polymeric materials research department, advanced Technology and New Materials Research Institute (ATNMRI), City for Scientific Research and Technological Applications (SRTA-City). 3 Zewailst. Universities and Research Centres District; New Borg El Arab City, Alexandria, Egypt. Mobile No : +201003098784 Email: <a href="mailto:aomar@srtacity.Sci.eg">aomar@srtacity.Sci.eg</a> -<a href="mailto:ahmedomer_81@yahoo.com">ahmedomer_81@yahoo.com</a></p>
<p><b>EDUCATION</b></p>	<ul style="list-style-type: none"> <li>• <b>Ph.D.; Applied physical chemistry (Polymers Science); 2013</b> Faculty of science – Alazhar University- Egypt.</li> <li>• <b>M.Sc.; Applied chemistry (Polymers Science); 2008</b> Faculty of science – Alazhar University- Egypt.</li> <li>• <b>B.Sc.; Special chemistry; 2003</b> Faculty of science – Alazhar University- Egypt.</li> </ul>	
<p><b>ACTIVITIES</b></p>	<ul style="list-style-type: none"> <li>• Postdoc fellowship; The University of Queensland; Australia; 2019</li> <li>• Postdoc fellowship; School of Food and Pharmacy, Zhejiang Ocean University; China; 2017</li> <li>• Postdoc fellowship; Institute of polymer; Bulgarian Academy of Sciences; Bulgaria; 2014</li> <li>• Postdoc fellowship; Institute of Experimental pharmacology and toxicology; Slovak Academy of Sciences; Slovak Republic; 2014</li> <li>• Master scholarship; Egyptian academy of science; 2005</li> </ul> <p><b>Conferences</b></p> <ol style="list-style-type: none"> <li>1. Drug Delivery Australia 2019 Conference. School of Pharmacy, The University of Queensland, Brisbane, Australia, (18, 19 November, 2019).</li> <li>2. International conference on environment and natural science (ICENS). Beijing, China (15-</li> </ol>	

16 July, **2018**).

3. The 17<sup>th</sup> Arab International Conference on Materials Science " Materials for Novel Applications" 18-20 December (**2017**), Alexandria, Egypt.

4. 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**).

12th Arab international conference on polymer science and technology 26-29 October Luxor; Egypt. (**2015**).

5. The 4th International Scientific Conference Applied Natural Sciences. NovýSmokovec, High Tatras. Slovakia (**2013**).

6. 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**.

7. The 8<sup>th</sup> International Scientific Conference Environment, Development, Bioinformatics, Faculty of Science, Al-Azhar University (26-28 March 2012), Cairo, Egypt.

9. The Second international conference for Applications of Biotechnology) 17<sup>th</sup>-18<sup>th</sup> October 2009, Faculty of Biotechnology, October University for Modern Sciences and Arts and University of Greenwich, 6 October. Egypt.

10. The First international conference for Applications of Biotechnology) 18<sup>th</sup> -19<sup>th</sup> October 2008, Faculty of Biotechnology, October University for Modern Sciences and Arts and University of Greenwich, Egypt.

#### **Workshops**

1. The International Nanotechnology Summit; The British University in Egypt (BUE); Nanotechnology Research Center (NTRC); (March 14, **2018**).

2. 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. (17-19 April **2018**).

3. 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**).

4. Recent Advances in Pharmaceutical Technology from Development to Patency; Pharmaceutical Technology Department (NRC; Egypt; October, 24, **2017**).

5. Workshop on Recent Advances in Pharmaceutical Technology From Development to Patency, 24 October, 2017, Cairo, Egypt.

6. Nanotechnology and its Biological applications workshop; City of scientific research and technological applications, (SRTA City); Alexandria, Egypt (20 April, **2015**).

7. The 7<sup>th</sup> Workshop on Ubiquitous Computing and Intelligence Information: Challenges and Solutions), July 21, **2008**. city for scientific research and technological application, Alexandria, Egypt.

8. Attending The 1st General Assembly Meeting of the North Africa and Middle East

	<p>Science centers network (NAMES))2, 3 November 2008 held in Bibliotheca Alexandrina, Alexandria, Egypt.</p> <p>9. Attending the second EMUNI Research Souk, The Euro-Mediterranean Student Research Multi-conference. 14 June 2010, Alexandria University, Egypt.</p>
	<p><b>Administrative Activities</b></p> <p><a href="#">List your Administrative Activities here...</a></p> <p>(Activity Title, Description &amp; Date)</p>
	<p><b>Extra-curriculum Activities</b></p> <p><b><u>PhD thesis</u></b></p> <ol style="list-style-type: none"> <li>1. Advanced wound dressing based on gelatin biopolymer. PhD. in Department of Chemistry, Faculty of Science, <b>Tanta University (Graduated 2020)</b>.</li> <li>2. "Development of polymeric drug carriers based on modified gelatin Hydrogel" in department of material science, institution of graduate studies and researches. (Running 2019).</li> <li>3. Preparation and characterization of modified chitosan hydrogel for drug delivery systems PhD. in Department of Chemistry, Faculty of Science, Alexandria University (Running 2019).</li> <li>4. 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).</li> <li>5. Development of hydrogel biopolymers for smart drug delivery systems applications. PhD. in Department of Chemistry, Faculty of Science, Alexandria University (Running 2019).</li> <li>6. Synthesis and characterization of efficient adsorbents based-metal-organic frameworks (MOFs) for water treatment applications. PhD.; Faculty of Science, Alexandria University (Running 2019).</li> <li>7. Development of natural Polymeric Materials for Removing Petroleum Oil Spills. . PhD. in Department of Chemistry, Faculty of Engineering, Alexandria University (Graduated 2018)</li> <li>8. .Development of Some Bio-based Graft Copolymers for Oil Spill Removal. PhD. in Department of Chemistry, Faculty of Science, Al- Azhar University (Graduated 2017).</li> <li>9. Production of Keratin Particles Using Some Local Bacterial Isolates For Water Treatment. PhD.; Faculty of Science, Alexandria University (Running 2018).</li> <li>10. Development of Polymer Polyelectrolyte Membranes for Direct Methanol Fuel Cell Application. PhD. Department of Chemistry, Faculty of Science, Ain- Shams University (Graduated 2017).</li> <li>11. Development of magnetic iron oxide nanoparticles for heavy metal removal application. PhD. in Department of physics, Faculty of Science, Alexandria University (Graduated 2017)</li> <li>12. Development of optical metal oxide nanoparticles for water organic pollutants purification.</li> </ol>

PhD. in Department of physics, Faculty of Science, Alexandria University (Graduated 2018)

### M.Sc thesis

1. 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)**.
2. 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).
3. Development of chemically modified chitosan membranes for bio-medical applications, M. Sc, Faculty of Science, Al- Azhar University (Graduated 2019)
4. 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).
5. 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).
6. 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).
7. 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).
8. 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).
9. Development of crosslinked modified Poly (Vinyl Alcohol for biomedical applications. M. Sc.in Department of Chemistry, Faculty of Science, Alexandria University (Graduated 2016).
10. 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).
11. 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).
12. Development of polymeric flocculants based on modified carboxymethyl cellulose for water purification applications. M. Sc, Faculty of Science, Damnhour University (Running 2017)

### 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. ACS Omega, (American Chemical Society Publisher)

	<p>4. Biotechnology reports (Elsevier)</p> <p>5. International Journal of Biological Macromolecules (Elsevier)</p> <p>6. Reactive and Functional Polymers (Elsevier)</p> <p>7. Journal of Polymer Engineering (JPOLYENG)</p> <p>8. Chemical Engineering Communications</p> <p>9. Polymer Bulletin</p> <p>10. Journal of Cleaner Production</p> <p>11. Desalination and water treatment (Taylor&amp;Francis)</p> <p>12. Environmental Nanotechnology, Monitoring &amp; Management (Elsevier)</p> <p>13. International Journal of Energy Research (Wiley Online Library)</p> <p>14. Journal of applied pharmaceutical science (MediPoeia)</p> <p>15. Adsorption Science and Technology (SAGE Publications Inc.)</p> <p>16. Egyptian Journal of Chemistry. (ISSN :2357-0245).</p>
<b>GRANTS &amp; AWARDS</b>	<p><b><u>Grants</u></b></p> <p>1- Principal investigator (PI); Development of smart superabsorbent polymeric hydrogels as conditioners for sandy soil; ID: 25984-STDF Basic &amp; Applied Research Grants (STDF-BARG); Egypt (2019)</p> <p>2- Principal investigator (PI); Development of polymeric nanocapsules for drug delivery applications; ID: 25398-Capacity Building Grants -(STDF-STF); Egypt (2019)</p> <p>3- Co-Principal investigator ; Development of antimicrobial polymeric membranes based on gelatin for wound healing management; (STDF), Research Support &amp; Technology Development Grant (RSTDG); Egypt (2018)</p>
	<p><b>Awards</b></p> <p>1- Scientific achievement award; 2014-City of scientific research and technological applications, (SRTA- City); Alexandria, Egypt.</p>
<b>LIST OF</b>	<p>1. Tamer M. Tamer, Mohamed A. Hassan, KatarínaValachová, <b><u>Ahmed M. Omer</u></b>, Muhammad E.A.El-Shafeey, Mohamed S. MohyEldin, LadislavŠoltés. Enhancement</p>

<p><b>PUBLICATIONS</b></p>	<p>of wound healing by chitosan/hyaluronan polyelectrolyte membrane loaded with glutathione: In vitro and in vivo evaluations. <b>Journal of Biotechnology</b>, Volume 31020 February 2020, Pages 103-113.</p> <p>2. <b>A.M.Omer</b>,Gehad S. Elgarhy, Gehan M. El-Subruiti, Randa E. Khalifa, Abdelazeem S. Eltaweil,Fabrication of novel iminodiacetic acid-functionalized carboxymethyl cellulose microbeads for efficient removal of cationic crystal violet dye from aqueous solutions. <b>International Journal of Biological Macromolecules</b>, 148 (2020)1072-1083.</p> <p>3. Abdelazeem S. Eltaweil, Gehad S. Elgarhy, Gehan M. El-Subruiti, <b>A.M.Omer</b>. Novel Carboxymethyl Cellulose/CarboxylatedGraphene Oxide Composite Microbeads for Efficient Adsorption of Cationic Methylene Blue Dye. <b>International Journal of Biological Macromolecules</b>, Accepted 1-2020.</p> <p>4. <b>Omer, A.M.</b>,Tamer, T.M., Abou-Taleb, W.M. Roston, G.D., Hafez, A.M., Shehata, E.F., Khalifa, R.E. Mohyeldin, M.S. Zinc oxide nanoparticles development using phosphorylated alginate template matrix for water treatment applications: I. removal of methylene blue dye. <b>Desalination and Water Treatment</b>, Volume 174, January 2020, Pages 376-388.</p> <p>5. <b>Ahmed M. Omer</b>, Randa E. Khalifa, Tamer M. Tamer, Ahmed A. Ali, Yossry A. Ammar, Mohamed S. MohyEldin.Kinetic, equilibrium and thermodynamic studies for the sorptive removal of crude oil spills using a low cost chitosan-poly (butyl acrylate) grafted copolymer. <i>Desalination and Water Treatment</i> (accepted 2020).</p> <p>6. <b>Ahmed Mohamed Omer</b>, T.M Tamer,Abou-Taleb, W.M. Roston, G.D., Hafez, A.M., Shehata, E.F., Khalifa, R.E. Mohyeldin.Development of iron oxide nanoparticles using alginate hydrogel template for chromium (VI) ions removal. <b>Desalination and water treatment</b>, January(2020). 175:229-243.</p> <p>7. Abdelazeem S. Eltaweil, Eman M. Abd El-Monaem, <b>Ahmed M. Omer</b>, Randa E. Khalifa, Mona M. Abd El-Latif, Gehan M. El-Subruiti. Efficient removal of toxic methylene blue (MB) dye from aqueous solution using a metal-organic framework (MOF)MIL-101(Fe): Isotherms, kinetics and thermodynamic studies. <i>Desalination and Water Treatment</i> 189 (2020) 395–407.</p> <p>8. A.E.M. Mekky, M.M. El-Masry, R.E. Khalifa, A.M. Omer, T.M. Tamer, Z.A. Khan,M. Gouda, M.S. MohyEldin, Removal of methylene blue dye from synthetic aqueous solutions using dimethylglyoxime modified amberlite IRA-420: kinetic, equilibrium and thermodynamic studies, <i>Desalination and Water Treatment</i>, 181 (2020) 399–411.</p> <p>9. <b>A. M. Omer</b>, Y.A. Ammar, GMAIL Ahmed Mohamed, Y.M. Abdelbaky, T.M Tamer; Preparation of isatin/chitosan schiff base as novel antibacterial biomaterials. <i>Egypt.J.Chem.</i> (2020).</p> <p>10. T.M Tamer, <b>A.M.Omer</b>, M.M.Sabet, M. Goda, M.A. Hassan M.S.Mohyeldin, Effect of tween 20 as Plasticizer on cinnamyl chitosan membranes: Preparation, characterization and antimicrobial evaluation, <i>Egyptian Journal of Chemistry</i>, (2020).</p> <div data-bbox="358 1709 591 1814" style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>2019</b></p> </div> <p>11. <b>A.M.Omer</b>, R.E.Khalifa,T.M.Tamer, M. Elnouby, A.M.Hamed, Y.A.Ammar, A.A.Ali,</p>
----------------------------	--

- M.Gouda, M.S. MohyEldin, Fabrication of a novel low-cost superoleophilic nonanyl chitosan-poly (butyl acrylate) grafted copolymer for the adsorptive removal of crude oil spills. *International Journal of Biological Macromolecules*, Volume 140, 1 November 2019, Pages 588-599.
12. E. Kenawy , **A.M. Omer** , T.M. Tamer , M.A. Elmeligy , M.S. MohyEldin, Fabrication of biodegradable gelatin/chitosan/cinnamaldehyde crosslinked membranes for antibacterial wound dressing applications. *International Journal of Biological Macromolecules*, Volume 139, 15 October 2019, Pages 440-448.
  13. Xiaoxiao Sun, Chao Liu, **A.M. Omer**, Li-Ye Yang, Xiao-kun Ouyang, Dual-layered pH-sensitive alginate/chitosan/kappa-carrageenan microbeads for colon-targeted release of 5-fluorouracil. *International Journal of Biological Macromolecules*. Volume 132, 1 July 2019, Pages 487-494.
  14. Xiaoxiao Sun, Chao Liu, **A.M. Omer**, Wuhuan Lu, Shuxing Zhang, Xun Jiang, Hongjie Wu, Di Yu, Xiao-kun Ouyang, pH-sensitive ZnO/carboxymethyl cellulose/chitosan bio-nanocomposite beads for colon-specific release of 5-fluorouracil. *International Journal of Biological Macromolecules*. 128 (2019) 468–479.
  15. Gomaa F. El Fawal, **Ahmed M. Omer**, Tamer M. Tamer. Evaluation of antimicrobial and antioxidant activities for cellulose acetate films incorporated with Rosemary and Aloe Vera essential oils. *J Food Sci Technol* <https://doi.org/10.1007/s13197-019-03642-8>.
  16. Hong Zhang , **A.M. Omer** , Zhaohong Hu , Li-Ye Yang , Chao Ji , Xiao-kun Ouyang. Fabrication of magnetic bentonite/carboxymethyl chitosan/sodium alginate hydrogel beads for Cu (II) adsorption. *International Journal of Biological Macromolecules*. Volume 135, 15 August 2019, Pages 490-500.
  17. XueXue Liang, **A.M. Omer**, Zhao-hong Hu, Yangguang Wang, Di Yu, Xiao-kun Ouyang. Efficient adsorption of diclofenac sodium from aqueous solutions using magnetic amine-functionalized chitosan, *Chemosphere* 217 (2019) 270-278.
  18. **A.M. Omer**, R.E. Khalifa, Zhaohong Hu, Hong Zhang, Chao Liu, Xiao-kun Ouyang. Fabrication of tetraethylenepentamine functionalized alginate beads for adsorptive removal of Cr (VI) from aqueous solutions. *International Journal of Biological Macromolecules*, 125 (2019) 1221–1231 .
  19. R. E. Ghonim, **A. M. Omer**, T. M. Tamer, W. Salem, M. S. Mohyeldin. Removal of methylene blue dye from synthetic aqueous solutions using novel phosphonate cellulose acetate membranes: Adsorption kinetic, equilibrium, and thermodynamic studies. *Desalination and Water Treatment*, 144 (2019) 272–285.
  20. R. E. Ghonim, **A. M. Omer**, T. M. Tamer , A.A. Ali. Y. Ammar, M. S. Mohyeldin. Efficient eco-friendly crude oil adsorptive chitosan derivatives: kinetics, equilibrium and thermodynamic studies. *Desalination and Water Treatment*, 2019-1-13.
  21. M. A. Taher; **Ahmed M. Omer**; A. M. Hamed; A. M. Ali; T. M. Tamer; M. S. MohyEldin, Development of smart alginate/chitosan grafted microcapsules for colon site-specific drug delivery. *Egyptian Journal of Chemistry*, (2019).

**2018**

22. Mohamed A. Hassan, **Ahmed M. Omer**, Eman Abbas, Walid M.A. Baset and Tamer M. Tamer, Preparation, physicochemical characterization and antimicrobial activities of novel two phenolic chitosan Schiff base derivatives. **Nature; Scientific reports**, (2018) 8:11416 | DOI:10.1038/s41598-018-29650-w.
23. Tamer M. Tamer, KatarínaValachová, Mohamed A. Hassan, **Ahmed M. Omer**, Muhammad El-Shafeey, Mohamed S. MohyEldin, LadislavŠoltés.Chitosan/hyaluronan/edaravone membranes for anti-inflammatory wound dressing: In vitro and in vivo evaluation studies. **Materials Science & Engineering C 90 (2018) 227–235.**
24. Tamer M. Tamer, Maurice N. Collins, Katarina Valachová, Mohamed A. Hassan, **Ahmed M. Omer**, Mohamed S. Mohy-Eldin, Karol Švík, RastislavJurčík, L’ubomírOndruška, CsabaBíró, Ahmad B. Albadarin and LadislavŠoltés. MitoQ Loaded Chitosan-Hyaluronan Composite Membranes for Wound Healing. **Materials (2018) 11, 569; doi:10.3390/ma11040569.**
25. A. Shebl, **A. M. Omer**, T. M. Tamer. Adsorption of cationic dye using novel O-amine functionalized chitosan Schiff base derivatives: isotherm and kinetic studies. **Desalination and Water Treatment. 130 (2018) 132–141.**
26. Zhao-Hong Hu, **Ahmed Mohamed Omer**, Xiao-kun Ouyang, Di Yu. Fabrication of carboxylated cellulose nanocrystal/sodium alginate hydrogel beads for adsorption of Pb (II) from aqueous solution. **International Journal of Biological Macromolecules. Volume 108, March (2018) Pages 149–157.**
27. Chao Liu, **A.M. Omer**, Xiao-kun Ouyang. Adsorptive removal of cationic methylene blue dye using carboxymethyl cellulose/k-carrageenan/activated montmorillonite composite beads: Isotherm and kinetic studies. **International Journal of Biological Macromolecules., 106 (2018) 823-833.**
28. Zhao-Hong Hu, Yan-Fei Wang, **Ahmed Mohamed Omer**, Xiao-kun OuYang. Fabrication of ofloxacin imprinted polymer on the surface of magnetic carboxylated cellulose nanocrystals for highly selective fluoroquinolones from water. **International Journal of Biological Macromolecules 107 (2018) 453–462.**
29. Elbadawy A. Kamoun, **Ahmed M. Omer** • Marwa M. Abu-Serie • Sherine N. Khattab • Heba M. Ahmed • Ali A. Elbardan, Photopolymerized PVA-g-GMA Hydrogels for Biomedical Applications: Factors Affecting Hydrogel Formation and Bio-evaluation Tests, **Arabian Journal for Science and Engineering. (2018) https://doi.org/10.1007/s13369-017-3054-5.**
30. Elbadawy A. Kamoun, **Ahmed M. Omer** • Sherine N. Khattab • Heba M. Ahmed • Ali A. Elbardan In-Situ UV-Photopolymerized PVA-g-GMA Hydrogels for Biomedical Applications: I. Synthesis, Characterizations and Grafting Optimization. **Journal of Applied Pharmaceutical Science Vol. 8 (01), pp 034-042, January, (2018).**
31. T.M.Tamer, A. M. Hafez, G.D. Roston, M.S Mohyeldin, W.M. Abou-Taleb, **Ahmed Omer.** Formation of Zinc oxide nanoparticles using alginate as a template for purification of waste water. **Environmental Nanotechnology, Monitoring & Management 10 (2018) 112–121.**

## 2017

32. Nan Wang, Yan-Fei Wang, **A. M. Omer**, Xiao-kun OuYang. Fabrication of Novel Surface-Imprinted Magnetic Graphene Oxide Grafted Cellulose Nanocrystals for Selective Extraction and Fast Adsorption of Fluoroquinolones from Water. *Analytical and Bioanalytical Chemistry*, 409:6643–6653 (2017).
33. Nan Wang, Ru-Na Jin, **A.M. Omer**, Xiao-kun Ouyang. Adsorption of Pb (II) from fish sauce using carboxylated cellulose nanocrystal: Isotherm, kinetics, and thermodynamic studies. *International Journal of Biological Macromolecules* 102 (2017) 232–240.
34. Nan Wang, Xiao-Kun Ouyang, Li-Ye Yang, and **Ahmed Mohamed Omer**. Fabrication of a Magnetic-Cellulose Nanocrystal-Metal Organic-Framework Composite for Removal of Pb II- from Water. *ACS Sustainable Chem. Eng.* (2017) 5, 10447-10458.
35. Tamer M. Tamer, Mohamed A. Hassan, **Ahmed M. Omer**, Katarína Valachová, Mohamed S. MohyEldin, Maurice N. Collins, Ladislav Šoltés. Antibacterial and antioxidative activity of O - amine functionalized chitosan. *Carbohydrate Polymers* 169:441-450. (2017).
36. M. S. MohyEldin, Y. A. Ammar, T. M. Tamer, **A. M. Omer**, A. A. Ali. Development of low-cost chitosan derivatives based on marine waste sources as oil adsorptive materials: I. Preparation and characterization. *Desalination and Water Treatment*. 72 (2017).
37. M. S. MohyEldin, **A. M. Omer**, T. M. Tamer, M. H. AbdElmageed , M. E. Youssef, R. E. Khalifa. Novel Aminated Cellulose Acetate Membranes for Direct Methanol Fuel Cells (DMFCs). *Int. J. Electrochem. Sci.*, 12 (2017) 4301 – 4318.
38. M. S. MohyEldin, A. E. Hashem, T. M. Tamer, **A. M. Omer**, M. E. Yossuf, M. M. Sabet. Development of Cross linked Chitosan/Alginate Polyelectrolyte Proton Exchanger Membranes for Fuel Cell Applications. *Int. J. Electrochem. Sci.*, 12(2017) 3840-3858.
39. T. M. Tamer, W.M. Abou-Taleb, G. D. Roston, E.F. Shehata, **A. M. Omer**. Characterization and evaluation of iron oxide nanoparticles prepared using hydrogel template based on phosphonate alginate. *Nanoscience& Nanotechnology-Asia*. Volume 7 ,(2017).

## 2016

40. Tamer M. Tamer, Mohamed A. Hassan, **Ahmed M. Omer**, Walid M.A. Baset, Mohamed E. Hassan, Muhammad E. A. El-Shafeey, Mohamed S. MohyEldin. Synthesis, characterization and antimicrobial evaluation of two aromatic chitosan Schiff base derivatives. *Process Biochemistry* 51 (2016) 1721–1730.
41. Forte M., Mita L., Perrone R., Rossi S., Argirò M., Mita D.G., Guida M., Godievargova T., Ivanov Y., Tamer T. M., **Omer A. M.**, MohyEldin M. S. Removal of Methylparaben from Synthetic Aqueous Solutions using Polyacrylonitrile Beads: Kinetic and Equilibrium Studies. *Environmental Science and Pollution Research*. 2016 DOI 10.1007/s11356-016-7846-z.
42. **Ahmed M. Omer**, Tamer M. Tamer, Mohamed A. Hassan, Maysa M. Sabet, Mohamed S. MohyEldin. Plasticization of PVC membranes with eugenol for Biomedical Applications. *Int J Pharm* (2016); 6(1): 149-155.

43. **Omer AM**, Tamer TM, Hassan MA, Rychter P, MohyEldin MS, Koseva N. Development of amphoteric alginate/aminated chitosan coated microbeads for oral protein delivery. *International Journal of Biological Macromolecules* 92 (2016) 362–370.
44. M. S. MohyEldin., M. H. AbdElmageed., **A. M. Omer**, T. M. Tamer, M. E. Yossuf, R. E. Khalifa. “Novel Proton Exchange Membranes Based on Sulfonated Cellulose Acetate for Fuel Cell Applications: Preparation and Characterization”. *Int. J. Electrochem. Sci.*(2016).
45. M. S. MohyEldin., M. H. AbdElmageed., **A. M. Omer**, T. M. Tamer, M. E. Yossuf, R. E. Khalifa. Development of Novel Phosphorylated Cellulose Acetate Polyelectrolyte Membranes for Direct Methanol Fuel Cell Application. *Int. J. Electrochem. Sci.*, 11 (2016) 3467 – 3491.
46. E.M. El-Sayed, T.M. Tamer, **A.M. Omer**, M.S. MohyEldin. Development of novel chitosan schiff base derivatives for cationic dye removal: methyl orange model. *Desalination and Water Treatment.* (2016) 1–14.
47. M. S. MohyEldin, Y. A. Ammar, T. 14. M. Tamer, **A. M. Omer**, A. A. Ali. DEVELOPMENT OF A LOW-COST OLEOPHILIC ADSORBENT BASED ON AMINATED CHITOSAN - POLY (BUTYL ACRYLATE) GRAFT COPOLYMER FOR MARINE OIL SPILL CLEANUP. *International Journal of Advanced Research* 4(11):2080-2094 (2016).
48. M. S. MohyEldin, Y. A. Ammar, T. M. Tamer, **A. M. Omer**, A. A. Ali. DEVELOPMENT OF OLEOPHILIC ADSORBENT BASED ON CHITOSAN- POLY (BUTYL ACRYLATE) GRAFT COPOLYMER FOR PETROLEUM OIL SPILL REMOVAL. *International Journal of Advanced Research* 4(11):2095-2111 (2016).
49. Mostafa M.H. Khalil, Reda A.I. Abou-Shanab, Abdel Naby M. Salem, **Ahmed M. Omer**, TaherAttiyaAboelazm. Biosorption of Trivalent Chromium Using Ca-alginate Immobilized and Alkali-treated Biomass. *Journal of Chemical Science and Technology.* 2016, Vol. PP. 1-6.
50. **A. M. Omer**, Tamer Abd el-razik, Abd EL Monem,M.S, Sami Abdelmoaty, Mona Abd El Fatah, Gamal R Saad. Development of PVC membranes with clove oil as plasticizer for blood bag applications. *Journal of Applied Pharmaceutical Science* 6(7):85 • (2016).

**2015-2011**

50. **Ahmed M. Omer**, Tamer M. Tamer, Mohamed A. Hassan, Maysa M. Sabet, Mohamed S. MohyEldin. Plasticization of PVC membranes with eugenol for Biomedical Applications. *Int J Pharm* (2016); 6(1): 149-155.
51. M.S. MohyEldin, A. M. Omer, M.A.Wassel, T.M.Tamer, M.S. Abd-Elmonem, S.A.Ibrahim. Novel smart pH sensitive chitosan grafted alginate hydrogel microcapsules for oral protein delivery: II. Evaluation of the swelling behavior. *Int J Pharm PharmSci*, (2015) Vol 7, Issue 10, 331-337.
52. M.S. MohyEldin, A. M. Omer, M.A.Wassel, T.M.Tamer, M.S. Abd-Elmonem, S.A.Ibrahim. Novel smart pH sensitive chitosan grafted alginate hydrogel microcapsules for oral protein delivery: I. Preparation and characterization. *Int J Pharm PharmSci*, (2015) Vol 7, Issue 10, 320-326.
53. Tamer M. Tamer, Ahmed M. Omer, Mohamed A. Hassan, Mohamed E. Hassan, Maysa M.

Sabet, Mohamed S.MohyEldin. Development of thermo-sensitive poly N-isopropyl acrylamide grafted chitosan derivatives. *Journal of Applied Pharmaceutical Science* 5 (Suppl 3); 2015: 001-006.

54. M. S. MohyEldin, A. I. Hashem, A. M. Omer, T. M. Tamer. Wound dressing membranes based on chitosan:Preparation, characterization and biomedical evaluation. *Int. J. of Adv. Res.*, 3, 8, 908- 922. (2015).
55. M. S. MohyEldin, A. I. Hashem, A. M. Omer, T. M. Tamer. "Preparation, characterization and antimicrobial evaluation of novel cinnamyl chitosan Schiff base". *Int. J. of Adv. Res.* 3 (3), 741-755. (2015)
56. M.S. MohyEldin, A. M. Omer, E. A. Soliman, E. A. Hassan. Superabsorbent Polyacrylamide Grafted Carboxymethyl Cellulose pH Sensitive Hydrogel: I. Preparation and Characterization. *M. Journal of Desalination and Water Treatment*, 51 (2013) 3196–3206.
57. M. S. MohyEldin, H. M. El-Sherif, E. A. Soliman, A. A. Elzatahry, A.M. Omer. Polyacrylamide Grafted Carboxymethyl Cellulose: Smart pH-Sensitive Hydrogel for Protein Concentration.. *Journal of Applied Polymer Science*, vol 122.(469-479) 2011.

## Book Chapters

1. **Ahmed M. Omer**, Mohamed S. MohyEldin, Tamer M. Tamer, Randa E. Khalifa, Samar A. Gaber. Smart Biopolymer Hydrogels Developments for Bio-technological Applications. In: Mondal M. (eds) *Cellulose-Based Superabsorbent Hydrogels. Polymers and Polymeric Composites: A Reference Series*. Springer, Cham) Nature; Springer International Publishing, Switzerland, (2018).
2. Tamer Abd el-razik, Katarina Valachova, **Ahmed Mohamed Omer**, MaysaSabet, LadislavŠoltés. EFFECTS OF GLUTATHIONE,PHOSPHONATE, OR SULFONATED CHITOSANS AND THEIR COMBINATION ON SCAVENGING FREE RADICALS. In book: High-performance materials and engineered chemistry, Chapter: 14, In book: High-performance materials and engineered chemistry Publisher: **Apple Academic Press**, Chapter: 14, 371-389 (2018). USA.
3. Maysa M. Sabet, Tamer M. Tamer, and **Ahmed M. Omer**, Hyaluronan: Biological Function and Medical Applications, *Applied Chemistry and Chemical Engineering.. Volume 2 Principles, Methodology, and Evaluation Methods*. **Apple Academic Press**. USA. (2018).
4. **Ahmed M. Omer**, Mohamed S. MohyEldin, Tamer M. Tamer, Randa E. Khalifa, Samar A. Gaber. M. A. Hassan, Development of superabsorbent graft copolymer hydrogel based on carboxymethyl cellulose for water retention in sandy soil carboxymethylcellulose: Properties, Applications and Effectiveness" **Nova Science Publishers**, New York. Accepted (2018).
5. Hassan Mohamed E, Tamer Tamer M, **Omer Ahmed M**. Methods of Enzyme Immobilization. *International Journal of Current Pharmaceutical Review and Research*; 7(6); 385-392. (2017).

6. **Ahmed M. Omer**, Tamer M. Tamer, Mohamed S. Mohyeldin. High-molecular weight of biopolymer. book: Analysis and Performance of Engineering Materials Key Research and Development, Chapter: 2, Publisher: **Apple academic press, CRC Press Taylor & Francis group**, Editors: Gennady E. Zaikov, pp.19-43. ISBN: 978-1-77188-085-5. (2015).
7. M.S. MohyEldin, **A. M. Omer**, M.A.Wassel, M.S. Abd-Elmonem, S.A.Ibrahim. Novel smart chitosan grafted alginate microcapsules pH sensitive hydrogel for oral protein delivery: Release and Bio-Evaluation Studies, Handbook of Sustainable Polymers - Structure and Chemistry. **Pan Stanford Publishing** 11(2016) 381-412. ISBN 978-981-4613-55-2 (Hardcover).
8. **A. M. Omer** , T. M .Tamer, M.S. Mohyeldin. ,HyaluronanBiopolymer:Properties and Pharmaceutical Applications, Chemical and biochemical physics. Apple academic press, Toronto, Newjersy,USA,Volume (3) chapter 28 (2014).
9. M.S. MohyEldin, **A. M. Omer**, E.A. Soliman ,E.A.Hassan. Polyacrylamide-Grafted Gelatin: Swellable Hydrogel Delivery System for Agricultural Applications. Food Composition and Analysis: Methods and Strategies.**Apple academic press**, Chapter 11 (2014).
10. M. S. MohyEldin, **A. M. Omer**, E. A. Soliman, and E. A. Hassan. Preparation, Characterization and Evaluation of Water-Swellable Hydrogel Via Grafting Cross-Linked Polyacrylamide Chains onto Gelatin Backbone by Free Radical Polymerization..Engineering of Polymers and Chemical Complexity. **Apple academic press**, Volume 1, Chapter 11 (2014).

## **Encyclopedia**

- 1-Randa E. Khalifa, Tamer M. Tamer, Ahmed M. Omer, and Mohamed S. MohyEldin, Fuel Cell: Cellulose-Based Polyelectrolyte Proton Exchange Membranes, Encyclopedia of Polymer Applications, First Edition (2019): DOI: 10.1201/9781351019422-140000504.