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### **Educational Qualification**

- Ph.D. in Chemical Engineering (2012), Amirkabir University of Technology (Tehran Polytechnique), Tehran, Iran
- M.Sc. in Chemical Engineering- Biotechnology - (2008), Amirkabir University of Technology (Tehran Polytechnique), Tehran, Iran
- B.Sc. in Chemical Engineering (2006), Sahand University of Technology, Tabriz, Iran

## Academic Positions

- 2021- Present, Assistant Professor, Chemical Engineering Department, Faculty of Chemical and Petroleum Engineering, University of Tabriz
- 2017- 2021, Assistant Professor, Chemical Engineering Department, Faculty of Chemical Engineering, University of Mohaghegh ardabili, Ardabil, Iran
- 2012- 2017, Assistant Professor, Chemical Engineering Department, Faculty of Chemical Engineering, University of Mohaghegh ardabili, Ardabil, Iran

## Research Interests

- Synthesis of nanoparticles and nanocomposites
- Biodegradable nanocomposite films
- Removal of heavy metals and pollutants by adsorption
- Advanced oxidation processes
- Nanomaterials with antibacterial properties
- Hydrophobic surfaces and self-cleaning
- Water evaporation Reduction
- Stabilization of nanoparticles

## Papers Published in Scientific Journals

1. Falah, S., **Ghorbanpour**, M. and Rafeie, O., 2026. APTES-functionalized bentonite for hierarchical reinforcement of gelatin films: enhanced mechanical, thermal, and barrier performance. *Chemical Papers*, pp.1-14.
2. Golzad-Nonakaran, B., Ahmadian, S.M.S., **Ghorbanpour**, M. and Amani-Ghadim, A.R., 2025. Novel Z-Scheme/Type-II ZnO/Bi<sub>2</sub>MoO<sub>6</sub>/AgFeO<sub>2</sub> Ternary Heterojunctions for Persulfate-Assisted Photocatalytic Elimination of Several Dyes Exposure to Visible Light. *Korean Journal of Chemical Engineering*, 42(12), pp.2919-2933.
3. Jajin, R. G., & **Ghorbanpour**, M. (2023). Reduce evaporation in water storage tanks by hydrophobic Leca in the experimental environment.

4. Hajipour, N., **Ghorbanpour**, M., & Safajou-Jahankhanemlou, M. (2022). Synthesis and characterization of solid-state Fe-exchanged nano-bentonite and evaluation of methyl orange adsorption. *Environmental Science and Pollution Research*, 29(33), 49898-49907.
5. Jajin, R. G., & **Ghorbanpour**, M. (2022). Removal of asphaltene by solid-phase iron exchanged bentonite. *Environmental Progress & Sustainable Energy*, e14032.
6. Rasouli, H., Jafarpisheh, F., & **Ghorbanpour**, M. (2022). Synthesis and characterization of Sn-doped TiO<sub>2</sub> nanoparticles and the evaluation of their Photocatalytic performance under Vis-lights. *Journal of Water and Environmental Nanotechnology*, 7(4), 344-350.
7. Jajin, R. G., Feizi, A., & **Ghorbanpour**, M. (2022). Experimental investigation of hydrophobic bentonite effects on reducing evaporation from water surfaces. *Journal of Hydrology and Hydromechanics*, 70(2), 170-177.
8. Hajipour, N., **Ghorbanpour**, M., & Feizi, A. (2022). Photo-Fenton decolorization of dye with Cu solid state exchanged bentonite. *DESALINATION AND WATER TREATMENT*, 256, 265-72.
  
9. Ghahramani Jajin, R., Feizi, A., & **Ghorbanpour**, M. (2021). Reduction of Water Evaporation from Dam Reservoirs Using Hydrophobic Silver-Doped Titanium Dioxide Nanoparticles Coating. *Water Resources Research*, 57(5), e2020WR029231.
10. Nouri, A., Yaraki, M. T., Lajevardi, A., Rezaei, Z., **Ghorbanpour**, M., & Tanzifi, M. (2020). Ultrasonic-assisted green synthesis of silver nanoparticles using Mentha aquatica leaf extract for enhanced antibacterial properties and catalytic activity. *Colloid and Interface Science Communications*, 35, 100252.
11. Nouri, A., Yaraki, M. T., Lajevardi, A., Rahimi, T., Tanzifi, M., & **Ghorbanpour**, M. (2020). An investigation of the role of fabrication process in the physicochemical properties of  $\kappa$ -carrageenan-based films incorporated with Zataria multiflora extract and nanoclay. *Food Packaging and Shelf Life*, 23, 100435.
12. Shayegh, R., & **Ghorbanpour**, M. (2020). A new approach for preparation of iron oxide-pillared bentonite as adsorbent of dye. *Desalination and Water Treatment*, 183, 404-412.
13. Yosofi, M., & **Ghorbanpour**, M. (2020). Optimum dioxide titanium nanoparticles in dioxide titanium/bentonite composite for sonophotocatalytic decolorization of methyl orange dye. *Journal of Environmental Science and Technology*, 21(12), 13-26.

14. Mahsa Madadi, Mohammad **Ghorbanpour**, Atabak Feizi, Preparation and Characterization of Solar Light-Induced Rutile Cu-doped TiO<sub>2</sub> Photocatalyst by solid-state molten salt method, *Desalination and Water Treatment*, 145 (2019) 257–261.
15. **Ghorbanpour**, Mohammad; Atabak Feizi, Iron-doped TiO<sub>2</sub> Catalysts with Photocatalytic Activity, *Journal of Water and Environmental Nanotechnology*, 4(2019).
  
16. Bahareh Hakimi, mohammad **ghorbanpour**, Atabak Feizi, Comparison of photocatalytic activity of ZnO/activated carbon nanocomposites prepared by solid-state method and conventional precipitation method, *journal of nanostructures*,8(3): 259-265.
17. Bahareh Hakimi, Mohammad **ghorbanpour**, Atabak Feizi, ZnO/bentonite Nanocomposites Prepared by Solid-state Ion Exchange as Photocatalysts for Degradation of Dyes, *Journal of Ultrafine Grained and Nanostructured Materials*, 2018, 51(2.(
18. Mahsa Madadi, mohammad **ghorbanpour**, Atabak Feizi, Antibacterial and Photocatalytic Activity of Anatase Silver-doped Titanium Dioxide Nanoparticles, *micro and nanoletters*, Volume 13, Issue 11, November 2018, p. 1590 – 1593.
19. Nouri, A., Yarak, M. T., **Ghorbanpour**, M., & Wang, S. (2018). Biodegradable κ-carrageenan/nanoclay nanocomposite films containing Rosmarinus officinalis L. extract for improved strength and antibacterial performance. *International journal of biological macromolecules*. 115 (2018) 227–235.
20. B Hakimi, M **Ghorbanpour**, A Feizi, A Comparative Study between Photocatalytic activity of ZnO/bentonite Composites Prepared by Precipitation, Liquid-state Ion Exchange and Solid-state Ion Exchange Methods, *Journal of Water and Environmental Nanotechnology* 3 (3), 273-278.
21. Mohammad **Ghorbanpour**, Soybean oil bleaching by adsorption onto bentonite/iron oxide nanocomposites, *Journal of Physical Science*, 29 (2), 113–119.
22. Nouri, A., Yarak, M. T., **Ghorbanpour**, M., Agarwal, S., & Gupta, V. K. (2018). Enhanced Antibacterial effect of chitosan film using Montmorillonite/CuO nanocomposite. *International journal of biological macromolecules*, 109, 1219-1231.
23. Mohammad Ghorbanpour, Antibacterial activity of porous anodized copper (2018) *Journal of Ultrafine Grained and Nanostructured Materials*, 50(1), 1-5.

24. Afsaneh Nouri, Mohammad **Ghorbanpour** and Samaneh Lotfiman (2018). Diffusion of Cu Ions into Nanoclay by Molten Salt Ion Exchange for Antibacterial Application, *Journal of Physical Science*, 29, 31-42.
25. Garshasbi, N., **Ghorbanpour**, M., Nouri, A., & Lotfiman, S. (2017). Preparation of Zinc Oxide-Nanoclay Hybrids by Alkaline Ion Exchange Method. *Brazilian Journal of Chemical Engineering*, 34(4), 1055-1063 .
26. Mohammad **Ghorbanpour**; Maryam Mazloumi; Afsaneh Nouri; Samaneh lotfiman, (2017) Silver-Doped Nanoclay with Antibacterial Activity, *Journal of ultrafine grained and nanostructured materials*, 50(2): 124-131.
27. S. Lotfiman, M. **Ghorbanpour**, Antimicrobial activity of ZnO/Silica gel nanocomposites prepared by a simple and fast solid-state method, *Surface & Coatings Technology* 310 (2017) 129–133.
28. S. M. Moghimi, M. **Ghorbanpour**, S. Lotfiman, Silica-supported copper oxide nanoleaf with antimicrobial activity against *Escherichia coli*, *Journal of Water and Environmental Nanotechnology*, *Journal of Water and Environmental Nanotechnology*, 2(2): 112-117, Spring 2017.
29. Mohammad **Ghorbanpour**, samaneh lotfiman, mehran yousofi, Photocatalytic decolorization of methyl orange by silica-supported TiO<sub>2</sub> composites, *Journal of Ultrafine Grained and Nanostructured Materials* 50 (1), 43-50 .
30. Mohammad **Ghorbanpour**, Samaneh Lotfiman Solid-state immobilization of titanium dioxide nanoparticles onto nanoclay, *Micro & Nano Letters* .
31. Hamideh Pourabolghasem, Mohammad **Ghorbanpour** and Razieh Shayegh, Antibacterial activity of copper-doped montmorillonite nanocomposites prepared by alkaline ion exchange method, *Journal of Physical Science*, 27 (2) 2016, 1-9.
32. Shalaleh Gilani, Mohammad **Ghorbanpour**, Aiyoub Parchehbaf Jadid, Antibacterial activity of ZnO films prepared by anodizing, *Journal of Nanostructure in Chemistry*, DOI: 10.1007/s40097-016-0194-1.
33. Roya Payami, Mohammad **Ghorbanpour**, Aiyoub Parchehbaf Jadid, Antibacterial silver-doped bioactive silica gel production using molten salt method, *Journal of Nanostructure in Chemistry*, DOI :10.1007/s40097-016-0193-2 .

34. Hamideh Pouraboulghasem, Mohammad **Ghorbanpour** , Razieh Shayegh, Samaneh Lotfiman, Synthesis, characterization and antimicrobial activity of alkaline ion-exchanged ZnO/bentonite nanocomposites, *Journal of Central South University* 23 (2016), 787-792 .
35. Mohammad **Ghorbanpour**, Amine accessibility and chemical stability of silver SPR chips silanized with APTES via vapor phase deposition method, *journal of physical science*, 27(1), 2016, 39-51 .
36. Mohammad **Ghorbanpour**, Fabrication of a New Amine Functionalised Bi-layered Gold/Silver SPR Sensor Chip, *Journal of Physical Science* 26(2), (2015) 1–10 .
37. Mohammad **Ghorbanpour**, Stability modification of SPR silver nano-chips by alkaline condensation of aminopropyltriethoxysilane, *Journal of Nanostructures* 5 (2015) 105-110 .
38. Mohammad **Ghorbanpour**, Cavus Falamaki, novel method for the fabrication of ATPES silanized SPR sensor chips: Exclusion of Cr or Ti intermediate layers and optimization of optical/adherence properties, *Applied Surface Science* 301 (2014) 544–550 .
39. Mohammad **Ghorbanpour**, Cavus Falamaki, A novel method for the production of highly adherent Au layers on glass substrates used in surface plasmon resonance analysis: substitution of Cr or Ti intermediate layers with Ag layer followed by an optimal annealing treatment, *Journal Of Nanostructure in Chemistry* 3 (2013) 2-7.
40. M. **Ghorbanpour**, Optimization of Sensitivity and Stability of Gold/Silver bi-Layer Thin Films Used in Surface Plasmon Resonance Chips, *JNS* 3 (2013) 309-313.
41. **Ghorbanpour** Mohammad; Zokaee Ashtiani, Farzin, Purification and partial characterization of a thrombin-like enzyme (AH144) from venom of Iranian snake *Agkistrodon halys*, *Iran. J. Chem. Chem. Eng.* 31 (2012).
42. Mohammad **Ghorbanpour** and Cavus Falamak, Micro energy dispersive x-ray fluorescence as a powerful complementary technique for the analysis of bimetallic Au/Ag/glass nanolayer composites used in surface plasmon resonance sensors, *APPLIED OPTICS* 51 (2012).
43. Zare Mirakabadi A., **Ghorbanpour** M., Sadeghi A., Sarzaeem A Two-step purification and partial characterization of an extra cellular  $\alpha$ -amylase from *Bacillus licheniformis*, *Archives of Razi Institute* 67 (2012) 155-160.
44. **Ghorbanpur** M, Zare Mirakabadi A, Zokaee F, Zolfagarriani HJ, Identification and partial purification of an anticoagulant factor from the venom of the Iranian snake *Agkistrodon halys* *Venom Anim Toxins incl Trop Dis.* 16 (2010).

45. **Ghorbanpur** M; Zare Mirakabadi AI; Zokae F; Zolfagarrian H; Rabiei H, Purification and partial characterization of a coagulant serine protease from the venom of the Iranian snake *Agkistrodon halys*, *J. Venom Anim Toxins incl Trop Dis.* 15 (2009)