# CURRICULUM VITAE




# Seyed Jamaleddin Peighambardoust

## Professor of Chemical Engineering

**Faculty of Chemical & Petroleum Engineering**

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## 1. Personal Details

**Name:** Seyed Jamaleddin

**Surname:** Peighambardoust

**Date of birth:** 17, June 1979

**Place of birth:** Marand, East Azerbaijan, Iran

**Marital status:** Married

**Nationality:** Iranian

**Language Skills**: Azeri (Maternal Language), Persian, English, Turkish

## 2. Educational Qualification

**Ph.D. in Chemical Engineering** (September, 2011), Iran University of Science and Engineering (IUST), Tehran, Iran

Thesis Title: Fabrication and Evaluation of the Self-humidifying Nanocomposite Proton Exchange Membrane with Improved Ionic Conductivity for PEMFCs

**M.Sc. in Chemical Engineering - Polymer** (February, 2006), Sahand University of Technology, Tabriz, Iran

Thesis Title: PTC Effect in Semi-Conducting Nylon 6-PPy-MMT Nanocomposites

**B.Sc. in Chemical Engineering** (September, 2003), Sharif University of Technology, Tehran, Iran

Thesis Title: Investigation of the Mass Transfer Limitation in Bioremediation in Porous Media

## 3. Academic Positions

**Jan. 2024 - Present**, **Professor**, Faculty of Chemical and Petroleum Engineering, University of Tabriz

**May 2022 – October 2024**, **Faculty Dean,** Faculty of Chemical and Petroleum Engineering, University of Tabriz

**June 2020 – May 2022**, **Vice-Chancellor for Education and Research**, Faculty of Chemical and Petroleum Engineering, University of Tabriz

**July 2017 – Oct. 2019**, **Head of Chemical Engineering Department**, Faculty of Chemical and Petroleum Engineering, University of Tabriz

**Jan. 2017 - Jan. 2024**, **Associate Professor**, Faculty of Chemical and Petroleum Engineering, University of Tabriz

**Sep. 2016 – Sep. 2018, Advisor of Scientific Association of Faculty**, Faculty of Chemical and Petroleum Engineering, University of Tabriz

**Oct. 2011 – Jan. 2017, Assistant Professor**, Faculty of Chemical and Petroleum Engineering, University of Tabriz

## 4. Research Interests

- **Polymer Science and Engineering**
  - ✓ **Synthesis and Application of Polymers, Composites and Nanocomposites in Energy and Environmental Systems**
  - ✓ **Polymeric Hydrogels for Wastewater Treatments**
  - ✓ **Polymeric Hydrogels for Drug Delivery Applications**

- ✓ **Polymeric Hydrogel Scaffolds for Bone Tissue Engineering Application**
- ✓ **Polymeric and Biodegradable Polymeric Films for Food Packaging Applications**
- ✓ **Polymeric membrane systems for PEM Fuel Cells**

➢ **Catalytic Systems**

- ✓ **Catalysts as adsorbents for Adsorption Process**
- ✓ **Catalysts for Biodiesel Production**
- ✓ **Metal-Organic Frameworks (MOF) as Superior Adsorbents**
- ✓ **Sono-photocatalytic Activity of Catalysts for the Degradation Process of Contaminants**

## 5. Academic Awards

- Selected as **"Top 2% Most Influential Highly Cited Researchers of the World Based on Stanford University Databases",** 2021 to Present

- **1st Researcher Award in the field of Technical and Engineering,** East Azerbaijan Province, Dec. 2025.

- **1st Researcher Award of the University in the Most Growth of H-Index,** University of Tabriz, Dec. 2025

- **1st Researcher Award in field of Technical and Engineering,** University of Tabriz, Dec. 2024

- **Teaching Excellence Award,** Faculty of Chemical and Petroleum Engineering, University of Tabriz, May 2023

- **1st Researcher Award,** Faculty of Chemical and Petroleum Engineering, University of Tabriz, Dec. 2022

- **1st Researcher Award,** Faculty of Chemical and Petroleum Engineering, University of Tabriz, Dec. 2018

- **Teaching Excellence Award,** Faculty of Chemical and Petroleum Engineering, University of Tabriz, May 2018

- **Brilliant Talent Acceptance in PhD Course of Chemical Engineering,** Faculty of Chemical Engineering, Iran University of Science & Technology (IUST), Feb. 2007

- **Graduated as a Brilliant Talent Student in Chemical Engineering (Polymer),** Faculty of Chemical Engineering, Sahand University of Technology, Feb. 2006

## 6. Patents

**1) Seyed Jamaleddin Peighambardoust,** Seyed Hadi Peighambardoust, Samira

Dehghani, Soheila Samadpour Hendvari and Seyedeh Homa Fasihnia, "Production of antimicrobial nanocomposite films for active food packaging", Iranian Patent Office, 83198, June 2014

**2) Seyed Jamaleddin Peighambardoust,** Javaneh Sakhaei Niroumand, Abolfazl Shenavar, "Production of flame-retardant polystyrene composites and evaluation of their flammability properties", Iranian Patent Office, 87712, January 2016

**3) Seyed Jamaleddin Peighambardoust,** Ali Mahmoudi Yayshahri, Abolfazl Shenavar, "Industrial production of high impact polystyrene biodegradable blend (HIPS) by melt extrusion using extruder", Iranian Patent Office, 88781, January 2017

## 7. Papers Published in Scientific Journals

1) Khairi R. Kalash, **Seyed Jamaleddin Peighambardoust**, Hassan Aghdasinia, Mustafa Al-Furaiji, "$Ti_3C_2T_x$ MXene-Tuned Polyamide Crosslinking and Surface Hydrophilicity for Enhanced Antifouling in Forward Osmosis Treatment of Hypersaline Produced Water", Chemical Engineering Journal Advances, 28, 101519, (2026), https://doi.org/10.1016/j.ceja.2026.101519

2) Simin Khosravi, Mahboobeh Madani, Bahman Ramavandi, Zarindokht Emami, **Seyed Jamaleddin Peighambardoust**, "Magnetically recoverable Fusarium oxysporum–$CuFe_2O_4$/ZIF-67 biocomposite for efficient $Cd^{2+}$ removal from aquatic systems", BMC Chemistry, In Press (2026), https://doi.org/10.1186/s13065-026-01943-6

3) Solmaz Ghojavand, Mahboobeh Madani, Bahman Ramavandi, **Seyed Jamaleddin Peighambardoust**, Ghoramreza Amiri, "A recyclable Mg–Fe LDH-functionalized magnetic fungal adsorbent for methylene blue removal from real wastewater", Biomass Conversion and Biorefinery, 16, 333 (2026), https://doi.org/10.1007/s13399-026-07266-9

4) **Seyed Jamaleddin Peighambardoust**, Hamzeh Khatooni, Naeimeh Sadat Peighambardoust, "Effective removal of methyl violet dye by montmorillonite-incorporated carboxymethyl cellulose-g-poly(methacrylic acid-co-acrylamide) nanocomposite hydrogel", Scientific Reports, In Press (2026), https://doi.org/10.1038/s41598-026-63944-8

5) Bashar J. Kadhim, Hassan Aghdasinia, **Seyed Jamaleddin Peighambardoust**, Abbas J. Sultan, "Experimental Cross-Sectional Mapping of Heat Transfer Behaviour in a Fluidized Bed Column", Chemical Engineering Journal, 539, 176906 (2026), https://doi.org/10.1016/j.cej.2026.176906

6) Siamak Pashajavid, Mahboobeh Ejtemaei, Safa Hanifi, Jafar Mostafaei, Elnaz

Asghari, **Seyed Jamaleddin Peighambardoust**, Nagihan Delibaş, Ali Çoruh, Aligholi Niaei, "Synergistic interface engineering of Ni–integrated Co-ZIF67 on two – demensional MXene for enhanced oxygen evolution reaction", Scientific Reports, 16, 19231, (2026), https://doi.org/10.1038/s41598-026-49517-9

7) Mahsa Bahramgour, Aligholi Niaei, Elnaz Asghari, **Seyed Jamaleddin Peighambardoust**, Nagihan Delibaş, "Enhancing structural and optical properties of hybrid perovskite layers with polymer modification", Scientific Reports, 16, 6210 (2026), https://doi.org/10.1038/s41598-026-36719-4
8) **Seyed Jamaleddin Peighambardoust**, Kosar Rasolpour, Ali Akbari, Hamid Safarzadeh, "Zirconium-based MOF-808 loaded magnetic biochar derived from biomass: magnetic nanocomposite characterization and adsorption performance", Surfaces and Interfaces, 75, 107801 (2025), https://doi.org/10.1016/j.surfin.2025.107801
9) Javaneh Sakhaei Niroumand, **Seyed Jamaleddin Peighambardoust**, Naeimeh Sadat Peighambardoust, "Sulfasalazine and tetracycline decontamination from aqueous media using nanocomposite adsorbent based on β-cyclodextrin containing magnetic montmorillonite modified by MIL-88A", Materials Today Chemistry, 49, 103096 (2025), https://doi.org/10.1016/j.mtchem.2025.103096
10) **Seyed Jamaleddin Peighambardoust**, Somayyeh Rezaei-Aghdam, Javaneh Sakhaei Niroumand, Parisa Mohammadzadeh Pakdel, Mika Sillanpää, "Efficient methylene blue elimination from water media by nanocomposite adsorbent based carboxymethyl cellulose grafted poly(acrylamide)/magnetic biochar decorated with ZIF-67", RSC Advances, 15, 32407-32423 (2025), https://doi.org/10.1039/D5RA03796D
11) Akram Babakhani, **Seyed Jamaleddin Peighambardoust**, Maryam Ghahremani-Nasab, Naeimeh Sadat Peighambardoust, "Fabrication of biodegradable nanocomposite scaffolds with hydroxyapatite, magnetic clay, and graphene oxide for bone tissue engineering", Scientific Reports, 15, 22235 (2025), https://doi.org/10.1038/s41598-025-07270-5
12) **Seyed Jamaleddin Peighambardoust**, Shima Abdollahian Aghbolagh, Rauf Foroutan, Naeimeh Sadat Peighambardoust, "Decontamination of crystal violet using nanocomposite adsorbent based on pine cone biochar modified with $CoFe_2O_4$/Mn-Fe LDH", Scientific Reports, 15, 15067 (2025), https://doi.org/10.1038/s41598-025-99549-w

13) Alireza Massrour, **Seyed Jamaleddin Peighambardoust**, Mahsa Foroughi, Rauf Foroutan, Bahman Ramavandi, "Crystal violet removal by sodium alginate-g-polyacrylamide/hydroxyapatite/Cu-Fe LDH nanocomposite", Environmental Technology & Innovation, 38, 104149 (2025), https://doi.org/10.1016/j.eti.2025.104149

14) **Seyed Jamaleddin Peighambardoust**, Baharak Fakhimi Najafi, Parisa Mohammadzadeh Pakdel, Hamidreza Azimi, "Simultaneous elimination of cationic dyes from water media by carboxymethyl cellulose-graft-poly(acrylamide)/magnetic biochar nanocomposite hydrogel adsorbent", Environmental Research, 273, 121150 (2025), https://doi.org/10.1016/j.envres.2025.121150

15) Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Mahsa Foroughi, Naeimeh Sadat Peighambardoust, Basir Maleki, Bahman Ramavandi, "Recycling the powder of spent alkaline batteries as a sustainable and reusable catalyst in producing biodiesel from waste cooking oil", Environmental Research, 271, 121028 (2025), https://doi.org/10.1016/j.envres.2025.121028

16) Ali Akbari, **Seyed Jamaleddin Peighambardoust**, Hossein Kazemian, "Comparative Study on the Impact of Physicochemical Characteristics of the Activated Carbons Derived from Biochar/Hydrochar on the Adsorption Performances", Environmental Research, 270, 121022 (2025), https://doi.org/10.1016/j.envres.2025.121022

17) **Seyed Jamaleddin Peighambardoust**, Armin Hamdi, Parisa Mohammadzadeh Pakdel, Naeimeh Sadat Peighambardoust, "Elimination of $Cu^{2+}$ ions from aqueous solutions utilizing a walnut shell biochar/$CoFe_2O_4$/ZIF-7 nanocomposite adsorbent", Inorganic Chemistry Communications, 173, 113797 (2025), http://doi.org/10.1016/j.inoche.2024.113797

18) **Seyed Jamaleddin Peighambardoust**, Zahra Mahdavi, Mortaza Gholizadeh, Rauf Foroutan, Bahman Ramavandi, "Pyrolytic carbon/Cloisite 30B/$ZnFe_2O_4$ as reclaimable magnetic nanocomposite for methylene blue decontamination", Colloids and Surfaces A: Physicochemical and Engineering Aspects, 704, 135543 (2025), https://doi.org/10.1016/j.colsurfa.2024.135543

19) **Seyed Jamaleddin Peighambardoust**, Mina Mollazadeh Azari, Parisa Mohammadzadeh Pakdel, Reza Mohammadi, Rauf Foroutan, "Carboxymethyl cellulose grafted poly(acrylamide)/magnetic biochar as a novel nanocomposite hydrogel for efficient elimination of methylene blue", Biomass Conversion and

Biorefinery, 15, 15193-15209 (2025), https://doi.org/10.1007/s13399-024-06180-2

**20)** Baraa Chasib Mezher AL Kasar, Shahab Khameneh Asl, Hamed Asgharzadeh, **Seyed Jamaleddin Peighambardoust**, "Enhancing soundproofing performance of polypropylene nanocomposites for implantable electrodes inside the body through graphene and nanoclay; thermomechanical analysis", AIP Advances, 14, 125313 (2024), https://doi.org/10.1063/5.0209738

**21)** Baraa Chasib Mezher AL Kasar, Shahab Khameneh Asl, Hamed Asgharzadeh, **Seyed Jamaleddin Peighambardoust**, "Denoising deep brain stimulation pacemaker signals with novel polymer-based nanocomposites: Porous biomaterials for sound absorption", AIMS Bioengineering, 11(2), 241-265 (2024), https://doi.org/10.3934/bioeng.2024013

**22)** Zahra Mahdavi, **Seyed Jamaleddin Peighambardoust**, Mahsa Foroughi, Rauf Foroutan, Mehrshad Ahmadi, Bahman Ramavandi, "Enhancing fluoride ion removal from aqueous solutions and glass manufacturing wastewater using modified orange peel biochar magnetic composite with MIL-53", Environmental Research, 262, 119825 (2024), https://doi.org/10.1016/j.envres.2024.119825

**23)** Zahra Sayyar, Parisa Mohammadzadeh Pakdel, **Seyed Jamaleddin Peighambardoust**, "Oral delivery of Sunitinib malate using Carboxymethyl cellulose/poly(acrylic acid-itaconic acid)/Cloisite 30B nanocomposite hydrogel as a pH-responsive carrier", BMC Biotechnology, 24, 70 (2024), https://doi.org/10.1186/s12896-024-00883-0

**24)** **Seyed Jamaleddin Peighambardoust**, Mahdiyeh Vatankhah, Parisa Mohammadzadeh Pakdel, Rauf Foroutan, Reza Mohammadi, "Carboxymethyl cellulose/activated carbon/hydroxyapatite composite adsorbent for remediation of methylene blue from water media", International Journal of Biological Macromolecules, 276, 133764 (2024), https://doi.org/10.1016/j.ijbiomac.2024.133764

**25)** **Seyed Jamaleddin Peighambardoust**, Shabnam Imani Zardkhaneh, Mahsa Foroughi, Rauf Foroutan, Hamidreza Azimi, Bahman Ramavandi, "Effectiveness of polyacrylamide-g-gelatin/ACL/Mg-Fe LDH composite hydrogel as an eliminator of crystal violet dye", Environmental Research, 258, 119428 (2024), https://doi.org/10.1016/j.envres.2024.119428

**26)** Parisa Mohammadzadeh Pakdel, Zahra Sayyar, **Seyed Jamaleddin Peighambardoust**, "Remediation of basic dyes using Cloisite 30B embedded

carboxymethyl cellulose grafted acrylic acid and itaconic acid nanocomposite hydrogel", Polymer Bulletin, 81, 13803-13824 (2024), https://doi.org/10.1007/s00289-024-05361-3

**27)** Mahsa Foroughi, **Seyed Jamaleddin Peighambardoust**, Bahman Ramavandi, Rauf Foroutan, Naeimeh Sadat Peighambardoust, "Simultaneous degradation of methyl orange and indigo carmine dyes from an aqueous solution using nanostructured $WO_3$ and CuO supported on Zeolite 4A", Separation and Purification Technology, 344, 127265 (2024), https://doi.org/10.1016/j.seppur.2024.127265

**28)** Roya Tahmasebpour, **Seyed Jamaleddin Peighambardoust**, "Decontamination of tetracycline from aqueous solution using activated carbon/$Fe_3O_4$/ZIF-8 nanocomposite adsorbent", Separation and Purification Technology, 343, 127188 (2024), https://doi.org/10.1016/j.seppur.2024.127188

**29)** Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Reza Mohammadi, Seyed Hadi Peighambardoust, Bahman Ramavandi, "The potential of biochar derived from banana peel/$Fe_3O_4$/ZIF-67@$K_2CO_3$ as magnetic nanocatalyst for biodiesel production from waste cooking oils", Results in Engineering, 22, 102005 (2024), https://doi.org/10.1016/j.rineng.2024.102005

**30)** Seyed Jamaleddin Peighambardoust, Fateh Karimzadeh Halimi, Parisa Mohammadzadeh Pakdel, Hamid Safarzadeh, "Decontamination of methylene blue from aqueous media using alginate-bonded polyacrylamide/carbon black nanocomposite hydrogel", Polymers for Advanced Technologies, 35, e6336 (2024), https://doi.org/10.1002/pat.6336

**31)** Javaneh Sakhaei Niroumand, **Seyed Jamaleddin Peighambardoust**, Reza Mohammadi, "Tetracycline decontamination from aqueous media using nanocomposite adsorbent based on starch-containing magnetic montmorillonite modified by ZIF-67", International Journal of Biological Macromolecules, 259, 129263 (2024), https://doi.org/10.1016/j.ijbiomac.2024.129263

**32)** Mahsa Foroughi, **Seyed Jamaleddin Peighambardoust**, Bahman Ramavandi, Daria Camilla Boffito, "Simultaneous anionic dyes degradation via $H_2O_2$ activation using Zeolite 4A/ZnO/$Fe_2(MoO_4)_3$ nanoparticles in a sono-photocatalytic process", Advanced Powder Technology, 35, 104320 (2024), https://doi.org/10.1016/j.apt.2023.104320

**33)** Akram Babakhani, **Seyed Jamaleddin Peighambardoust**, Ali Olad, "Fabrication of magnetic nanocomposite scaffolds based on polyvinyl alcohol-chitosan containing

hydroxyapatite and clay modified with graphene oxide: Evaluation of their properties for bone tissue engineering applications", Journal of the Mechanical Behavior of Biomedical Materials, 150, 106263 (2024), https://doi.org/10.1016/j.jmbbm.2023.106263

**34)** Mehran Alizadeh, **Seyed Jamaleddin Peighambardoust**, Rauf Foroutan, "Efficacious adsorption of divalent nickel ions over sodium alginate-g-poly(acrylamide)/hydrolyzed Luffa Cylindrica-$CoFe_2O_4$ bionanocomposite hydrogel", International Journal of Biological Macromolecules, 254, 127750 (2024), https://doi.org/10.1016/j.ijbiomac.2023.127750

**35)** **Seyed Jamaleddin Peighambardoust**, Abbas Mostafaei, Parisa Mohammadzadeh Pakdel, Mousa Mohammadpourfard, "Performance of carboxymethyl cellulose and alginate nanocomposite hydrogel containing graphene oxide nanosheets for removal of methylene blue dye", Journal of applied research in chemistry, 18(1) (2024), https://sanad.iau.ir/en/Journal/jacrntb/Article/1044871

**36)** Mahsa Zarei, Taghi Ebadi, Bahman Ramavandi, **Seyed Jamaleddin Peighambardoust**, "Photocatalytic decomposition of methylene blue and methyl orange dyes using pistachio biochar/$CoFe_2O_4$/Mn-Fe-LDH composite as $H_2O_2$ activator", Surfaces and Interfaces, 43, 103571 (2023), https://doi.org/10.1016/j.surfin.2023.103571

**37)** Narmin Noorani, Behrad Barzegar, Abbas Mehrdad, Hassan Aghdasinia, **Seyed Jamaleddin Peighambardoust**, Hossein Kazemian, "$CO_2$ capture in activated pyrolytic coke/metal oxide nanoparticle composites", Colloids and Surfaces A: Physicochemical and Engineering Aspects, 679, 132554 (2023), https://doi.org/10.1016/j.colsurfa.2023.132554

**38)** Behrad Barzegar, **Seyed Jamaleddin Peighambardoust**, Hassan Aghdasinia, Rauf Foroutan, "Performance improvement of pyrolytic coke by surface modification for adsorption of copper (II) ions from wastewater", Environmental Science: Water Research & Technology, 9, 3417-3434 (2023), https://doi.org/10.1039/D3EW00681F

**39)** Ali Akbari, **Seyed Jamaleddin Peighambardoust**, Marzieh Lotfi, "Hydrochar Derived from Liquorice Root Pulp Utilizing Catalytic/Non-Catalytic Hydrothermal Carbonization: RSM Optimization and Cationic Dye Adsorption Assessment", Journal of Water Process Engineering, 55, 104099 (2023), https://doi.org/10.1016/j.jwpe.2023.104099

**40)** Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Solmaz Ghojavand,

Mahsa Foroughi, Amir Ahmadi, Farahnaz Bahador, Bahman Ramavandi, "Development of a magnetic orange seed/$Fe_3O_4$ composite for the removal of methylene blue and crystal violet from aqueous media", Biomass Conversion and Biorefinery, 13(11), 1-16 (2023), https://doi.org/10.1007/s13399-023-04692-x

**41)** Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Reza Mohammadi, Seyed Hadi Peighambardoust, Bahman Ramavandi, "Investigation of kinetics, thermodynamics, and environmental factors of biodiesel generation from sunflower and castor oil using rice husk ash/CuO/$K_2CO_3$ heterogeneous catalyst", Environmental Technology & Innovation, 32, 103307 (2023), https://doi.org/10.1016/j.eti.2023.103307

**42)** Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Solmaz Ghojavand, Sima Farjadfard, Bahman Ramavandi, "Cadmium elimination from wastewater using potato peel biochar modified by ZIF-8 and magnetic nanoparticle", Colloid and Interface Science Communications, 55, 100723 (2023), https://doi.org/10.1016/j.colcom.2023.100723

**43)** **Seyed Jamaleddin Peighambardoust**, Hamid Safarzadeh, "Swelling behavior study of poly(methacrylic acid-co-acrylamide) nanocomposite hydrogel adsorbents containing different nanoparticles", Desalination and Water Treatment, 298, 44-52 (2023), https://doi.org/10.5004/dwt.2023.29610

**44)** Behrad Barzegar, **Seyed Jamaleddin Peighambardoust**, Hassan Aghdasinia, Rauf Foroutan, "Multi-characteristic optimization and modeling analysis of $Cu^{2+}$ removal from wastewater using activated coke/$MnFe_2O_4$ magnetic composite", Journal of Water Process Engineering, 53, 1-14 (2023), https://doi.org/10.1016/j.jwpe.2023.103803

**45)** Abolfazl Sadeghiazar Sharabiani, **Seyed Jamaleddin Peighambardoust**, Aligholi Niaei, Parisa Mohammadzadeh Pakdel, Yilmaz Yildirim, Ali Kemal Topaloglu, "Modification of polyvinylidene fluoride and polysulfone flat sheet membranes using perovskite nanoparticles for treatment of humic acid in a submerged membrane system", Desalination and Water Treatment, 297, 17-25 (2023), https://doi.org/10.5004/dwt.2023.29606

**46)** Hamid Safarzadeh, **Seyed Jamaleddin Peighambardoust**, Seyed Hadi Peighambardoust, "Application of a novel sodium alginate-graft-poly(methacrylic acid-co-acrylamide)/montmorillonite nanocomposite hydrogel for removal of malachite green from wastewater", Journal of Polymer Research, 30(4) (2023),

https://doi.org/10.1007/s10965-023-03531-x

47) **Seyed Jamaleddin Peighambardoust**, Elmira Ghergherehchi, Parisa Mohammadzadeh Pakdel, Hassan Aghdasinia, "Facile removal of methylene blue using carboxymethyl cellulose grafted polyacrylamide/carbon black nanocomposite hydrogel", Journal of Polymers and the Environment, 31(3), 939-953 (2023), https://doi.org/10.1007/s10924-022-02660-6

48) Hamzeh Khatooni, **Seyed Jamaleddin Peighambardoust**, Reza Mohammadi, Rauf Foroutan, Bahman Ramavandi, "Adsorption of methylene blue using sodium carboxymethyl cellulose-g-poly(acrylamide-co-methacrylic acid)/Cloisite 30B nanocomposite hydrogel", Journal of Polymers and the Environment, 31(1), 297-311 (2023), https://doi.org/10.1007/s10924-022-02623-x

49) Hamidreza Azimi, **Seyed Jamaleddin Peighambardoust**, "Characterization and morphological study of biodegradable PVA-Gelatin/CNT composite foams prepared via high-pressure batch foaming method", Journal of Porous Materials, 30, 751-766 (2023), https://doi.org/10.1007/s10934-022-01377-0

50) Parisa Mohammadzadeh Pakdel, **Seyed Jamaleddin Peighambardoust**, Rauf Foroutan, Nasser Arsalani, Hassan Aghdasinia, "Decontamination of Fuchsin dye by carboxymethyl cellulose-graft-poly(acrylic acid-co-itaconic acid)/carbon black nanocomposite hydrogel", International Journal of Biological Macromolecules, 222, 2083-2097 (2022), https://doi.org/10.1016/j.ijbiomac.2022.10.007

51) **Seyed Jamaleddin Peighambardoust**, Daria Camilla Boffito, Bahman Ramavandi, Rauf Foroutan, "Sono-photocatalytic activity of sea sediment@400/ZnO catalyst to remove cationic dyes from wastewater", Journal of Molecular Liquids, 367, 120478 (2022), https://doi.org/10.1016/j.molliq.2022.120478

52) Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Daria Camilla Boffito, Bahman Ramavandi, "Sono-Photocatalytic Activity of Cloisite 30B/ZnO/$Ag_2O$ Nanocomposite for the Simultaneous Degradation of Crystal Violet and Methylene Blue Dyes in Aqueous Media", Nanomaterials, 12(18), 3103 (2022), https://doi.org/10.3390/nano12183103

53) Parisa Mohammadzadeh Pakdel, **Seyed Jamaleddin Peighambardoust**, Nasser Arsalani, Hassan Aghdasinia, "Synthesis and performance evaluation of carboxymethyl cellulose nanocomposite hydrogel adsorbent grafted with acrylic acid and itaconic acid copolymer containing carbon black nanoparticles for Fuchsin removal", Iranian Journal of Polymer Science and Technology, 35(1), 39-51, (2022),

https://doi.org/10.22063/jipst.2022.3105.2133

**54)** Seyede Samira Hosseini, Ahmad Hamadi, Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Bahman Ramavandi, "Decontamination of $Cd^{2+}$ and $Pb^{2+}$ from aqueous solution using a magnetic nanocomposite of eggshell/starch/$Fe_3O_4$", Journal of Water Process Engineering, 48, 102911 (2022), https://doi.org/10.1016/j.jwpe.2022.102911

**55)** Hamid Safarzadeh, **Seyed Jamaleddin Peighambardoust**, Seyed Hamed Mousavi, Rauf Foroutan, Reza Mohammadi, Seyed Hadi Peighambardoust, "Adsorption ability evaluation of the poly(methacrylic acid-co-acrylamide)/Cloisite 30B nanocomposite hydrogel as a new adsorbent for cationic dye removal", Environmental Research, 212, 113349 (2022), https://doi.org/10.1016/j.envres.2022.113349

**56)** Rauf Foroutan, **Seyed Jamaleddin Peighambardoust**, Reza Mohammadi, Seyed Hadi Peighambardoust, Bahman Ramavandi, "Generation of biodiesel from edible waste oil using ZIF-67-KOH modified Luffa Cylindrica biomass catalyst", Fuel, 322, 124181 (2022), https://doi.org/10.1016/j.fuel.2022.124181

**57)** Amir Ahmadi, Rauf Foroutan, Hossein Esmaeili, **Seyed Jamaleddin Peighambardoust**, Saeed Hemmati, Bahman Ramavandi, "Montmorillonite clay/starch/$CoFe_2O_4$ nanocomposite as a superior functional material for uptake of cationic dye molecules from water and wastewater", Materials Chemistry and Physics, 284, 126088 (2022), https://doi.org/10.1016/j.matchemphys.2022.126088

**58)** Mehran Alizadeh, **Seyed Jamaleddin Peighambardoust**, Rauf Foroutan, Hamidreza Azimi, Bahman Ramavandi, "Surface magnetization of hydrolyzed Luffa Cylindrica biowaste with cobalt ferrite nanoparticles for facile $Ni^{2+}$ removal from wastewater", Environmental Research, 212, 113242 (2022), https://doi.org/10.1016/j.envres.2022.113242

**59)** Parisa Mohammadzadeh Pakdel, **Seyed Jamaleddin Peighambardoust**, Nasser Arsalani, Hassan Aghdasinia, "Safranin-O cationic dye removal from wastewater using carboxymethyl cellulose-grafted-poly(acrylic acid-co-itaconic acid) nanocomposite hydrogel", Environmental Research, 212, 113201 (2022), https://doi.org/10.1016/j.envres.2022.113201

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## 8. Conference Papers

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3) Shima Abdollahian Aghbolagh, **Seyed Jamaleddin Peighambardoust,** Rauf Foroutan, Reza Mohammadi, "Investigation of the kinetic behaviour of crystal violet dye adsorption process from aqueous solution using bio-charcoal prepared from conifer cone", 21th International Chemistry Congress (ICS), 26-28 July 2022, Azarbaijan Shahid Madani University, Tabriz, Iran
4) Fatemeh Ramezani, Rauf Foroutan, Amir Sh. Saljooghi, **Seyed Jamaleddin Peighambardoust**, "Removal of MB dye from aqueous solution using biochar prepared from orange peel", 21th International Chemistry Congress (ICS), 26-28 July 2022, Azarbaijan Shahid Madani University, Tabriz, Iran
5) Mina Mollazadeh Azari, **Seyed Jamaleddin Peighambardoust,** Rauf Foroutan, Reza Mohammadi, "Investigation of the kinetic behaviour of methylene blue dye adsorption process from aqueous solution using bio-charcoal prepared from tea waste", 21th International Chemistry Congress (ICS), 26-28 July 2022, Azarbaijan Shahid Madani University, Tabriz, Iran
6) Mehran Alizadeh, **Seyed Jamaleddin Peighambardoust,** "Evaluation of Mechanical and Physical Properties of Luffa Cylindrica Reinforced Bio-composites", The 7th International Conference on Composites : Characterization, Fabrication and Application (CCFA-7), 23-24 December 2020, Sahand University of

Technology, Tabriz, Iran

7) Rauf Foroutan, Reza Mohammadi, **Seyed Jamaleddin Peighambardoust**, "Production of kaolin/$MnO_2$ composite and evaluation of the effect of time and initial concentration of methylene blue dye on its recovery and removal from aqueous solution", 8th International Conference on Nanostructures (ICNS8), 18-20 November 2020, Sharif University of Technology, Tehran, Iran
8) Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust,** Abdolrasoul Oromiehie, "Preparing and investigating the properties of antioxidant active polymeric films containing BHT", 3rd International and 26th National Iranian Food Science and Technology Congress, 17-19 September 2019, Tarbiabt Modarres University, Tehran, Iran
9) Farshad Adel Alijan, **Seyed Jamaleddin Peighambardoust**, "Application of ceramic membranes and pressure sweep adsorption process for production of pure hydrogen", 2nd International Conference of New Research Achievements in Chemistry and Chemical Engineering, 5 May 2016, Amirkabir University of Technology, Tehran, Iran
10) Samira Dehghani, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Preparation and Chraracterization of LDPE-Metallic Nanoparticles (Ag, ZnO and CuO) Nanocomposite Films for Food Packaging Applications", 3rd International Conference on Nanotechnology (ICN 2015), 27-28 August 2015, Istanbul, Turkey
11) Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Preparation and Chraracterization of LDPE-Organoclay Nanocomposite Films for Food Packaging Applications", 3rd International Conference on Nanotechnology (ICN 2015), 27-28 August 2015, Istanbul, Turkey
12) Mahsa Azimi, **Seyed Jamaleddin Peighambardoust**, "Physical properties and proton conductivity measurements of Nafion-heteropoly acid nanocomposite membranes containing nanoclay", 5th International Congress on NanoScience and Nanotechnology (ICNN 2014), 22-24 October 2014, Tarbiat Modares University, Tehran, Iran
13) Samira Dehghani, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Antimicrobial studies of nanocomposite films containing Ag, ZnO and CuO nanoparticles for food packaging", 5th

International Congress on NanoScience and Nanotechnology (ICNN 2014), 22-24 October 2014, Tarbiat Modares University, Tehran, Iran

**14)** Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Antimicrobial studies of nanocomposite films containing different organically modified nanoclays for food packaging", 5th International Congress on NanoScience and Nanotechnology (ICNN 2014), 22-24 October 2014, Tarbiat Modares University, Tehran, Iran

**15)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Antimicrobial studies of nanocomposite films containing silver modified nanoclays for food packaging", 5th International Congress on NanoScience and Nanotechnology (ICNN 2014), 22-24 October 2014, Tarbiat Modares University, Tehran, Iran

**16)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Antimicrobial studies of nanocomposite films containing copper modified nanoclays for food packaging", 5th International Congress on NanoScience and Nanotechnology (ICNN 2014), 22-24 October 2014, Tarbiat Modares University, Tehran, Iran

**17)** Javaneh Sakhaei Niroumand, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Preparation of Phosphorous Flame Retardant Polystyrene Nanocomposites with Flammability and Thermal Stability Properties", 11th International Seminar on Polymer Science and Technology (ISPST 2014), 6-9 October 2014, Iran Polymer and Petrochemical Institute (IPPI), Tehran, Iran

**18)** Ali Mahmoudi Yayshahri, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Preparation of biodegradable high impact polystyrene/starch blends and evaluation of their thermal and impact properties", 11th International Seminar on Polymer Science and Technology (ISPST 2014), 6-9 October 2014, Iran Polymer and Petrochemical Institute (IPPI), Tehran, Iran

**19)** Ramin Faridvand, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Preparation of Flame Retardant Polystyrene via Bulk Polymerization Method and Evaluation of Its Flammability Properties", 11th International Seminar on Polymer Science and Technology (ISPST 2014), 6-9 October 2014, Iran Polymer and Petrochemical Institute (IPPI), Tehran, Iran

**20)** Hossein Heshmat Ebrahim Hesari, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Impact and thermal properties of biodegradable polystyrene/starch

blends", 11th International Seminar on Polymer Science and Technology (ISPST 2014), 6-9 October 2014, Iran Polymer and Petrochemical Institute (IPPI), Tehran, Iran

21) Mahsa Azimi, **Seyed Jamaleddin Peighambardoust,** Mir Ghasem Hosseini, "Methanol crossover of Nafion-clay-heteropolyacid nanocomposite membranes for direct methanol fuel cell applications", 11th International Seminar on Polymer Science and Technology (ISPST 2014), 6-9 October 2014, Iran Polymer and Petrochemical Institute (IPPI), Tehran, Iran

22) Javaneh Sakhaei Niroumand, **Seyed Jamaleddin Peighambardoust,** Abolfazl Shenavar, "Flammability Studies of Brominated Flame Retardant Polystyrene Nanocomposites", 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), 24-27 February 2014, Kish, Iran

23) Gholamreza Amirkhanlou, Soosan Roshanzamir, Toraj Mohammadi, **Seyed Jamaleddin Peighambardoust,** Ailin Rahnavard, "The effect of additive introduction into polymer matrix on the chemical and thermal stability of sulfonated polyether ether ketone nanocomposite membranes for fuel cell applications", 15th Conference on Process Integration, Modelling and Optimization for Energy Saving and Pollution Reduction (Organised in Collaboration with CHISA 2012), 25-29 August 2012, PRAGUE, CZECH REPUBLIC

24) **Seyed Jamaleddin Peighambardoust,** Soosan Roshanzamir, Mir Ghasem Hosseini, Gholamreza Amirkhanlou, "Synthesis and characterization of new Pt nanocatalysts based on the cesium salt of 12-tungstophosphoric acid as an additive for preparation of self-humidifying nanocomposite membranes in PEM fuel cells", 7th International Chemical Engineering Congress & Exhibition, 21-24 November 2011, Kish Island, Iran

25) Gholamreza Amirkhanlou, Soosan Roshanzamir, **Seyed Jamaleddin Peighambardoust**, "Effect of sulfonation degree (DS) on the chemical and thermal stability of sulfonated polyether ether ketone (sPEEK) membranes for fuel cell applications", 7th International Chemical Engineering Congress & Exhibition, 21-24 November 2011, Kish Island, Iran

26) **Seyed Jamaleddin Peighambardoust,** Soosan Roshanzamir, Mir Ghasem Hosseini, Mehdi Amjadi, "Investigation of the Optimum Degree of Sulfonation in the Sulfonated Polyether Ether Ketone (sPEEK) as a Proton Exchange Membrane for PEM Fuel Cells", Fuel Cells 2010 Science & Technology, 6-7 October 2010,

Zaragoza, Spain

27) **Seyed Jamaleddin Peighambardoust,** Soosan Roshanzamir, Mir Ghasem Hosseini, Mehdi Amjadi, "Non-Fluorinated Self-humidifying Nanocomposite Membranes with Ionic Conductivity Improvement for Proton Exchange Membrane Fuel Cell Applications", 10th International Conference on Clean Energy (ICCE-2010), 15-17 September 2010, Famagusta, North Cyprus

28) Reza Fareghi Alamdari, **Seyed Jamaleddin Peighambardoust**, "Anti-corrosive properties of the conductive polyaniline-organoclay nanocomposites synthesized via one-pot in situ emulsion polymerization method", International Conference on Nanotechnology: Fundamentals and Applications, 4-6 August 2010, Ottawa, Ontario, Canada

29) Samaneh Rakhshanpouri, **Seyed Jamaleddin Peighambardoust,** Soosan Rowshanzamir, "Water Transport in a Seven-Layer Model of PEMFC", The 5th International Ege Energy Symposium and Exhibition (IEESE-5), 27-30 June 2010, Pamukkale University, Denizli, Turkey

30) **Seyed Jamaleddin Peighambardoust,** Soosan Roshanzamir, Mir Ghasem Hosseini, Mehdi Amjadi, "Synthesis and Characterization of the Cs-Substituted Tungstophosphoric Acid Supported Pt Catalyst (Pt-$Cs_{2.5}H_{0.5}PW_{12}O_{40}$) as an Additive for Preparation of the Self-humidifying Composite Membranes in PEM fuel cells", The 5th International Ege Energy Symposium and Exhibition (IEESE-5), 27-30 June 2010, Pamukkale University, Denizli, Turkey

31) **Seyed Jamaleddin Peighambardoust,** Reza Fareghi Alamdari, "Synthesis and characterization of conductive polyaniline-organoclay nanocomposites via one-pot in situ emulsion polymerization method", 3rd International Conference on Nanostructures (NS 2010), 10-12 March 2010, Kish Island, Iran

32) Mehdi Amjadi, Soosan Rowshanzamir, Mohammad Hassan Eikani, **Seyed Jamaleddin Peighambardoust,** Saeid Sedghi, "Morphological investigation of Nafion/$TiO_2$ nanocomposite membranes of PEM fuel cells", The 6th International Chemical Engineering Congress & Exhibition (ICHEC 2009), 16-20 November 2009, Kish Island, Iran

33) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, Mehdi Amjadi, "Electrical and Thermal Properties of Nylon-6/PPy/MMT Nanocomposites", 2nd International Congress on Nanoscience & Nanotechnology (ICNN 2008), 28-30 October 2008, University of Tabriz, Tabriz*

* Best Poster Award for this article in 2nd International Congress on Nanoscience & Nanotechnology (ICNN 2008)

34) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, Mehdi Amjadi, "Conductive Nanocomposites of Polypyrrole/Montmorillonite (PPy/MMT): Characterization, Electrical and Thermal Properties", 2nd International Congress on Nanoscience & Nanotechnology (ICNN 2008), 28-30 October 2008, University of Tabriz, Tabriz

35) Mehdi Amjadi, Soosan Rowshanzamir, Mohammad Hassan Eikani, Saeid Sedghi, **Seyed Jamaleddin Peighambardoust**, "High Temperature Proton Exchange Membrane Fuel Cells: Advantages and Technical Challenges", 18th International Congress of Chemical and Process Engineering (CHISA 2008), 24-26 August 2008, PRAGUE, CZECH REPUBLIC

36) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, "Preparation and Characterization of Nylon-6/PPy/MMT Nanocomposite Blends", The 8th International Seminar on Polymer Science and Technology (ISPST 2007), 23-25 October 2007, Sharif University of Science and Technology, Tehran, Iran

37) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, "Conductive Polypyrrole/Montmorillonite Nanocomposites were synthesized via One-pot Emulsion Polymerization Method", The 8th International Seminar on Polymer Science and Technology (ISPST 2007), 23-25 October 2007, Sharif University of Science and Technology, Tehran, Iran

38) Behzad Pourabbas, **Seyed Jamaleddin Peighambardoust**, "Preparation and Electrical Properties of Nylon-6/PPy/MMT Nanocomposites", 3rd International Conference on Times of Polymers and Composites (TOP 2006), 18-22 June 2006, Ischia, Italy

39) Behzad Pourabbas, **Seyed Jamaleddin Peighambardoust**, "PTC Effect and electrical properties in polymeric composites prepared from carbon blacks modified with Ni and Au particles", 8th International Symposium on Polymers for Advanced Technologies (PAT 2005), 13-16 September 2005, Budapest, Hungary

40) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, "PTC Effect in polymeric composites prepared from carbon blacks modified with Ni and Au particles", The 4th International Seminar on Polymer Science and Technology (ISPST 2005), 27-29 September 2005, Amirkabir University of Technology, Tehran, Iran

## - Papers Presented in National Conferences

**1)** Seyed Reza Hosseini, Hassan aghdasinia, **Seyed Jamaleddin Peighambardoust**, "Investigation of the fluid behavior of smoke and air mixtures in the porous fibrous filter of cigarettes", 1st Iran IntrePore Conference, 24-25 September 2024, University of Tehran, Tehran, Iran

**2)** Hamzeh Khatouni, **Seyed Jamaleddin Peighambardoust,** Reza Mohammadi, Rauf Foroutan, "Investigation of the temperature effect and thermodynamic study of the adsorption process of crystal violet cationic dye from aqueous solution using closite-30B clay", 17th Iran National Congress of chemical Engineering, 9-11 November 2021, Ferdowsi University of Mashhad, Mashhad, Iran

**3)** Mehran Alizadeh, **Seyed Jamaleddin Peighambardoust,** Rauf Foroutan, Hamidreza Azimi Zonouzi, "Comparison of the kinetic behavior of heavy metal ion adsorption by carbonized Luffa Cylindrica biowaste", 17th Iran National Congress of chemical Engineering, 9-11 November 2021, Ferdowsi University of Mashhad, Mashhad, Iran

**4)** Rauf Foroutan, **Seyed Jamaleddin Peighambardoust,** "Production of kaolin/$MnO_2$ composite and investigation of the effect of contact time and initial concentration of methylene blue dye on its removal from aqueous solution", 17th Iran National Congress of chemical Engineering, 9-11 November 2021, Ferdowsi University of Mashhad, Mashhad, Iran

**5)** Abolfazl Sadeghiazar Sharabiani, **Seyed Jamaleddin Peighambardoust,** Aligholi Niaei, Yilmaz Yildirim, Alikemal Topaloglu, "Stabilized of perovskite on polyvinylidene fluoride and polysulfone polymer membranes for industrial wastewater treatment", 6th National Seminar on Polymer, 27-28 October 2021, Sahand University of Technology, Tabriz, Iran

**6)** Baharak Fakhimi Najafi, **Seyed Jamaleddin Peighambardoust,** Hamidreza Azimi Zonuzi, Rauf Foroutan, "Simultaneous adsorption of cationic dyes by Acrylamide Carboxymethylcellulose composite hydrogel containing Activated Carbon", 6th National Seminar on Polymer, 27-28 October 2021, Sahand University of Technology, Tabriz, Iran

**7)** Ahmadreza Mohammadian Soodmand, Behrad Barzegar, Hassan Aghdasinia, Farhad Gadianlu, Amir Saeidizad, **Seyed Jamaleddin Peighambardoust,** Mortaza Gholizadeh, "Physical and chemical activation methods of pyrolytic coke as industrial dye adsorbents", The first national conference on waste green management, 9-11 June 2021, University of Mohaghegh Ardabili, Ardebil, Iran

8) Omid Aghamohammadi Bavil, **Seyed Jamaleddin Peighambardoust,** Nasser Arsalani, Parisa Mohammadzadeh Pakdel, "Synthesis and evaluation of nanocomposite hydrogels based on carboxymethyl cellulose grafted polyacrylamide-containing nanoclay for wastewater treatment", The 16th Iranian National Congres of Chemical Engineering, 19-21 January 2019, Amirkabir University of Technology, Department of Chemical Engineering, Tehran, Iran

9) Arezou Pourlotfali, **Seyed Jamaleddin Peighambardoust,** Nasser Arsalani, Parisa Mohammadzadeh Pakdel, "Nanocomposite hydrogel based on carboxymethyl cellulose grafted poly(methacrylic acid) containing $Fe_3O_4$ nanoparticles for removal of metallic copper ions", The 16th Iranian National Congres of Chemical Engineering, 19-21 January 2019, Amirkabir University of Technology, Department of Chemical Engineering, Tehran, Iran

10) Parisa Meshinchi, Ahmadreza Mohammadian Soudmand, Hassan Aghdasinia, **Seyed Jamaleddin Peighambardoust**, "Statistical optimization using by central composite design (CCD) for adsorption process of ciprofloxacin by using of α-celloluse/clay nanocomposite", The 16th Iranian National Congres of Chemical Engineering, 19-21 January 2019, Amirkabir University of Technology, Department of Chemical Engineering, Tehran, Iran

11) Parisa Meshinchi, Hassan Aghdasinia, **Seyed Jamaleddin Peighambardoust,** Mahmoud Zarei, "Evaluation of the adsorption kinetics of the antibiotic ciprofloxacin by nano-clay", The National Conference on Treatment of Water, Air and Soil (TWAS2018), 3 July 2018, Chemistry and Chemical Engineering Research Center of Iran, Tehran, Iran

12) Asma Rezaei, **Seyed Jamaleddin Peighambardoust,** Hassan Aghdasinia, Saeid Asgharizadeh, "Efficiency improvement in polymeric solar cells with nano-structured Indium Tin oxide electrodes", 23th Iranian Conference on Optivs and Photonics (ICOP 2017) and 9th Iranian Conference on Photonics Engineering and Technology (ICPET 2017), 31 January - 2 February 2017, Tarbiat Modares University, Tehran, Iran

13) Niloufar Pournasir, **Seyed Jamaleddin Peighambardoust**, "Fabrication and evaluation of antibacterial nanocomposite films-based biopolymer containing metallic nanoparticles for food packaging applications", Second International Conference in New Research on Chemistry & Chemical Engineering, 5 May 2016, Amirkabir University of Technology, Tehran, Iran

14) Farshad Adel Alijan, **Seyed Jamaleddin Peighambardoust**, "The process of

refining paraffin oils via hydrogenation method", 1st National Symposium on Refinary Processes, 17 February 2016, Sahand University of Technology, Tabriz, Iran

**15)** Mahsa Azimi, **Seyed Jamaleddin Peighambardoust**, "Selectivity of Nafion-heteropolyacid nanocomposite membranes containing nanoclay for direct methanol fuel cell applications", 3rd Hydrogen & Fuel Cell Conference, 12-13 May 2015, Iranian Research Organization for Science and Technology (IROST), Tehran, Iran

**16)** Mahsa Azimi, **Seyed Jamaleddin Peighambardoust**, "Invvestigation of proton Conductivity in modified Nafion-MMT-CsPW Nanocomposie membranes", 2nd National Congress and Workshop on Nanoscience and Nanotechnology (NCWNN), 20-21 May 2015, Kharazmi University, Tehran, Iran

**17)** Abdolkhaled Mohammadi, **Seyed Jamaleddin Peighambardoust,** Ali Akbar Entezami, "Synthesis of polyaniline-functionalized graphene nanocomposites and evaluation of their electrochemical properties", 2nd National Congress and Workshop on Nanoscience and Nanotechnology (NCWNN), 20-21 May 2015, Kharazmi University, Tehran, Iran

**18)** Samira Dehghani, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Investigation of the Metallic Nanoparticles' Application in Nanocomposite Films as Active Films in Food Packaging", 22th National Iranian Food Science and Technology Congress, 30-31 August 2013, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran

**19)** Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Antimicrobial Food Packaging by Natural Antimicrobial Materials as Active Packaging", 22th National Iranian Food Science and Technology Congress, 30-31 August 2014, Gorgan University of Agricultural Sciences and Natural Resources, Gorgan, Iran

**20)** Samira Dehghani, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "The application of chitosan in the preparation of food antimicrobial packaging films", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**21)** Samira Dehghani, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "A review of Active Antimicrobial Packaging in the Food Industries", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**22)** Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin**

**Peighambardoust**, "Investigation of the use of organo-modified clay nanoparticles in preparation of antimicrobial nanocomposite films for food packaging applications" 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**23)** Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "A review of recent advances in starch-based polymer compositions, polyvinyl alcohol, nanocomposites, and their biodegradability", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**24)** Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Applications of active and intelligent packaging systems for meat and muscle products", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**25)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "A review of different types of biodegradable polymers for food packaging and their improved efficiency methods by adding nanoparticles", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**26)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Antimicrobial properties of polyethylene nanocomposite films containing silver modified clay nanoparticles in food packaging", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**27)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Antimicrobial properties of polyethylene nanocomposite films containing copper modified clay nanoparticles in food packaging", 21th National Iranian Food Science and Technology Congress, 29-31 October 2013, Shiraz University, Shiraz, Iran

**28)** Samira Dehghani, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, "Investigation of antimicrobial properties of polyethylene active nanocomposite films containing Ag, ZnO and CuO nanoparticles", 14th Nanotechnology Student Conference, 25-26 December 2013, Tehran University of Medical Science, Tehran, Iran

**29)** Javaneh Sakhaei Niroumand, **Seyed Jamaleddin Peighambardoust,** Abolfazl

Shenavar, “Preparation of flame-retardant polystyrene nanocomposites and evaluation of their flammability and thermal Properties”, 14th Nanotechnology Student Conference, 25-26 December 2013, Tehran University of Medical Science, Tehran, Iran

**30)** Seyedeh Homa Fasihnia, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, “Antimicrobial properties of polyethylene active nanocomposite films containing Organo-modified clay nanoparticles”, 14th Nanotechnology Student Conference, 25-26 December 2013, Tehran University of Medical Science, Tehran, Iran

**31)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, “Antimicrobial properties of polyethylene active nanocomposite films containing copper ions modified clay nanoparticles”, 14th Nanotechnology Student Conference, 25-26 December 2013, Tehran University of Medical Science, Tehran, Iran

**32)** Soheila Samadpour Hendvari, Seyed Hadi Peighambardoust, **Seyed Jamaleddin Peighambardoust**, “Antimicrobial properties of polyethylene active nanocomposite films containing metallic silver modified clay nanoparticles”, 14th Nanotechnology Student Conference, 25-26 December 2013, Tehran University of Medical Science, Tehran, Iran

**33)** Mahsa Azimi, **Seyed Jamaleddin Peighambardoust,** Mir Ghasem Hosseini, “Modification of Nafion Membranes with Different Clays for Direct Methanol Fuel Cell Applications”, 6th Iranian Fuel Cell Seminar, 12-13 March 2013, Shahid Rajaee Teacher Training University (SRTTU), Tehran, Iran

**34)** Soosa Rowshanzamir, **Seyed Jamaleddin Peighambardoust,** Gholamreza Amirkhanlou, “Chemical and Oxidative Stability of Self-humidifying Membranes Based on sPEEK for Proton Exchange Membarne Fuel Cell Applications”, 6th Iranian Fuel Cell Seminar, 12-13 March 2013, Shahid Rajaee Teacher Training University (SRTTU), Tehran, Iran

**35)** **Seyed Jamaleddin Peighambardoust,** Soosan Rowshanzamir, Mir Ghasem Hosseini, “Fabrication and evaluation of the self-humidifying nanoomposite proton exchange membrane based on sPEEK and proton conducting for polymeric fuel cells”, 11th Nanotechnology Student Conference, 22-23 February 2012, AmirKabir University of Technology, Tehran, Iran

**36)** **Seyed Jamaleddin Peighambardoust,** Soosan Rowshanzamir, Mohammad

Hassan Eikani, Mehdi Amjadi, "Study and investigation of different types of polymeric proton exchange membranes as PEM fuel cell electrolytes", The First National Conference on Hydrogen & Fuel Cell, 20-21 January 2009, Iran University of Sicence and Technology (IUST), Tehran, Iran

37) **Seyed Jamaleddin Peighambardoust,** Soosan Rowshanzamir, Mohammad Hassan Eikani, Mehdi Amjadi, "Evaluation of modification and enhancement efficiency of PEM fuel cell proton exchange polymer membranes", The First National Conference on Hydrogen & Fuel Cell, 20-21 January 2009, Iran University of Sicence and Technology (IUST), Tehran, Iran

38) Mehdi Amjadi, Soosan Rowshanzamir, Mohammad Hassan Eikani, **Seyed Jamaleddin Peighambardoust**, "Modification of proton exchange membranes with metal oxides by sol-gel and casting Methods", 12th Iranian National Chemical Engineering Congress, 20-23 October 2008, Sahand University of (IUST), Tabriz, Iran

39) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, "Polypyrrole-clay nanocomposites: evaluation of synthesis via chemical oxidation method, morphology and their electrical-thermal properties", 1st Iranian Petrochemical Conference (IPC 2008), 22-23 July 2008, Iran National Petrochemical Company, Tehran, Iran

40) Mehdi Amjadi, Soosan Rowshanzamir, **Seyed Jamaleddin Peighambardoust**, "High temperature polymeric proton exchange membrane fuel cells: advantages and challenges", National Conference on fuel, energy and environment, 27-29 May 2008, Materials and Energy Research Center (MERC), Tehran, Iran

41) Mehdi Amjadi, Soosan Rowshanzamir, **Seyed Jamaleddin Peighambardoust**, "The advantages and challenges of high temperature polymer electrolyte fuel cells", The Firs Conference on Oil, Gas and Petrochemical, National Conference on fuel, energy and environment, 21 May 2008, Islamic Azad University Gachsaran Branch, Gachsaran, Iran

42) **Seyed Jamaleddin Peighambardoust,** Behzad Pourabbas, "Investigation of morphology and electrical properties of Polypyrrole conductive polymer synthesized via chemical oxidation method", 11th Iranian National Chemical Engineering Congress, 28-30 November 2006, Tarbiat Modares University, Tehran, Iran

## 9. Completed and Current Research Projects

**1)** "Production of heterogeneous catalysts based on natural and synthetic materials for applications in sonophoto-catalytic process to remove dye contaminants in wastewater",

International Research Cooperation Program of University of Tabriz (TabrizU-300) in Collaboration with the Polytechnic University of Montreal in Canada, Sponsored by Vice chancellors in research and technology, University of Tabriz, 2021-2022 (Completed).

**2)** "Modification of fluorinated proton exchange membranes by clay nanoparticles for improved performance (enhanced selectivity) of direct methanol fuel cell (DMFC)", Sponsored by Vice chancellors in research and technology, University of Tabriz, 2013-2014 (Completed).

**3)** "Fabrication of nanocomposite polymeric films and their application in food packaging", Sponsored by Vice-Presidency for Science and Technology, 2011-2012 (Completed).

**4)** "Fabrication and characterization of non-fluorinated self-humidifying proton exchange composite membranes with the aim of improving ion conductivity for PEM fuel cells", Sponsored by Iran National Science foundation (INSF), 2010-2011 (Completed).

**5)** "Fabrication of semiconductor nanocomposites based on conductive polypyrrole (PPy) and investigation of their PTC behaviour", Sponsored by Iran Nanotechnology Innovation Council (INIC), 2004-2005 (Completed).

**6)** "Fabrication of nylon 6-clay nanocomposites for food packaging applications", Sponsored by Vice chancellors in research and technology, Sahand University of technology, 2004-2005 (Completed).

**7)** "Fabrication of repeating current limiters based on Positive Temperature Coefficient (PTC) polymeric resistors", Sponsored by Tavanir Organization, Ministry of Energy, 2003-2004 (Completed).

## 10. Thesis Supervised

### a) PhD Thesis Supervising

**1)** "Synthesis and evaluation of the biopolymer-based nanocomposite hydrogels including acrylic acid and itaconic acid copolymers to remove dyes from wastewater", Parisa Mohammadzadeh Pakdel, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**2)** "Preparation of nanocomposites based on biopolymer containing nanoclay modified by metal-organic frameworks (MOF) for application in controlled release of anti-cancer drugs", Javaneh Sakhaei Niroumand, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**3)** "Improvement of the properties of nanocomposite hydrogel scaffolds containing Hydroxyapatite (HAP) via nanoclay for bone tissue engineering application", Akram

Babakhani, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**4)** "Preparation and improvement of heterogeneous catalysts from agricultural wastes for biodiesel production from edible and non-edible oils", Rauf Foroutan, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**5)** "Synthesis and evaluation of magnetic adsorbents based on carbon modified by ZIF-8 metal - organic framework for the removal of antibiotic pharmaceutical contaminants from aqueous solutions", Roya Tahmasebpour, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**6)** "Investigation of the performance of sonophotocatalytic activity of synthetic zeolite composite containing metal oxides in the degradation process of dyes", Mahsa Foroughi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**7)** "Performance Enhancement of Hybrid Forward Osmosis - Membrane Distillation Systems for Sustainable Treatment of Oil Produced Water", Khairi Resen Kalash, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**8)** "Impact of Column Geometry on Heat Transfer Characteristics in Fluidized Beds: A Comparative Study of Cylindrical and Conical Designs", Bashar Jawad Kadhim, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**9)** "Evaluation of the adsorption performance of biochar from tomato waste modified by $Fe_3O_4$ magnetic nanoparticles and Mn-Fe layerd double hydroxide in the removal of heavy metal ions from aqueous solutions", Navid Moghaddam Nansa, Faculty of Tabriz University Campuses, University of Tabriz (Completing)

**9)** "Experimental investigation and molecular dynamics-based simulation of ammonium removal from refinery's model wastewater using recycled coke from the asphalting unit of Tabriz Refinery", Mir Shabeddin Izadkhah, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**10)** "Biodiesel Production from Edible Oil Sources through Transesterification and Photo-transesterification Approaches Utilizing Zinc-Based Spinel Catalysts", Seyed Reza Hosseini, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

### b) PhD Thesis Advising

**1)** "Production and studying of nanocomposites packaging films based on low density polyethylene (LDPE) in food industry", Faranak Beigmohammadi, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**2)** “Improvement of the yield, quality and shelf life of quark cheese”, Seyed Amir Seyed Moslemi, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**3)** “Preparation of polypropylene-based active packaging films with antioxidant and antimicrobial materials for increasing doughnut shelf life”, Seyedeh Homa Fasihnia, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**4)** “Optimizing the effective parameters on the integrated photocatalytic adsorption/degradation process in the removal of selected dyes using composites of layered double hydroxides (LDH) - carbon obtained from agricultural waste”, Mahsa Zarei, Faculty of Civil and Environment, Amirkabir University of Technology (Completed)

**5)** “Fabrication and investigation of thermal and mechanical properties of polypropylene/graphene/nanoclay nanocomposites”, Baraa Chasib Mezher AL Kasar, Material Engineering Department, Faculty of Mechanical Engineering, University of Tabriz (Completed)

**6)** “Production and modification of the fungus Fusarium oxysporum biomass using magnetic nanoparticles and metal-organic framework compounds and their use in removing heavy metals from aqueous solution, investigation on antifungal effects and the ability to stimulate the immune system in small laboratory mice”, Simin Khosravi, Falavarjan branch of Islamic Azad University (Completing)

**7)** “Biomass production of the fungus Mucor hiemalis and its modification with magnetic nanoparticles and layered double hydroxides (LDH) nanoparticles to remove cationic dyes and some pathogenic fungi from aqueous solution: investigation on antifungal effects and the ability to stimulate the immune system in small laboratory mice”, Solmaz Ghojavand, Falavarjan branch of Islamic Azad University (Completing)

**8)** “Simulation and experimental study of the structural, surface and optical properties of the hybrid perovskite layer and investigating the effect of the presence of polymer in perovskite solar cells”, Mahsa Bahramgour, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**9)** “Investigation of the stability and functional properties of spray-dried microcapsules containing aqueous extract of fermented cereal bran”, Dorsa Hosseinzadeh, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completing)

## c) MSc Thesis Supervising

**1)** “Preparation of nanocomposite films based on LDPE-organically modified nanoclay and investigating their physical, mechanical and antimicrobial properties as active films for food packaging”, Seyedeh Homa Fasihnia, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**2)** “Preparation of nanocomposite films based on LDPE-metallic nanoparticles and investigation of their antimicrobial properties as active films for food packaging”, Samira Dehghani, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**3)** “Fabrication of nanocomposite films based on LDPE and HDPE-clay modified containing metallic nanoparticles and investigating their antimicrobial properties as active films for food packaging”, Soheila Samadpour Hendvari, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**4)** “Preparation of flame-retardant polystyrene nanocomposites and evaluation of their flammability properties”, Javaneh Sakhaei Niroumand, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**5)** “Study of thermodynamic properties of moist air in high temperatures and pressures and propose a predictive model”, Ehsan Amiri, Islamic Azad University Ahar Barach (Completed)

**6)** “Simulation and improvement process conditions of hydrogen plant's reformer of Tabriz oil refinery by Aspen-Hysys simulation software”, Mahsa Azimi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**7)** “Preparation of flame-retardant polystyrene via in-Situ bulk polymerization method and evaluation of its flammability properties”, Ramin Faridvand, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**8)** “Preparation of biodegradable polymer blends based on high impact polystyrene (HIPS) and evaluation of their properties”, Ali Mahmoudi Yayshahri, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**9)** “Preparation of biodegradable polymer blends based on general purpose polystyrene (GPPS) and evaluation of their properties”, Hossein Heshmat Ebrahim Hesari, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**10)** “Synthesis of graphene-polyaniline nanocomposites and evaluation of their electrochemical properties”, Abdolkhaled Mohammadi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**11)** “Preparation and evaluation of antimicrobial properties of nanocomposite films based on natural polymers containing metal nanoparticles in food packaging”, Niloufar Pournasir, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**12)** “The effect of clay nanoparticle on antimicrobial properties of nano-composite films based on natural polymer for food packaging”, Rohollah Khodaeimehr, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**13)** “Preparation and evaluation of antimicrobial properties of nanocomposite films based on natural polymers containing metal oxide nanoparticles ($MO_2$) for food packaging”, Hamed Hajizadeh, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**14)** “Preparation and evaluation of electrical properties of nanocomposite adhesive based on epoxy resin with using the electrically conductive nanofiller”, Hamed Rikhtegar, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**15)** “Preparation and investigation of antimicrobial properties of nanobiocomposites films based on carboxymethyl cellulose for food packaging”, Yadollah Ebrahimi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**16)** “Preparation of nanobiocomposites based on carboxymethyl cellulose (CMC) and evaluation of their antimicrobial properties”, Sirous Zahed Karkaj, Islamic Azad University Ahar Barach (Completed)

**17)** “Preparation and evaluation of the polymeric drug delivery system based on PLA-PEG block copolymer containing carbon nanotubes and iron nanoparticles for controlled release of Docetaxel”, Farshid Hosseinpanahi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**18)** “Investigation on effect of carbon black modification on electrical properties of nanocomposite adhesive based on epoxy resin”, Neda Masaebi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**19)** “Swelling behavior evaluation of nanocomposite hydrogels containing nanomaterials”, Maryam Abdolhosseinzadeh, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**20)** “Investigation of graft acrylonitrile butadiene styrene (g-ABS) latex coagulation process by different coagulants and comparison of resulting polymers' properties”, Babak Zadmohseni, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**21)** "Evaluation and production of antistatic properties in acrylonitrile butadiene styrene polymer (ABS) based on using additives", Farhad Shaghaghi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**22)** "Design and simulation plasmonic effect of Ag and Au nanoparticles on performance of polymer solar cells", Asma Rezaei, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**23)** "A study on the removal of antibiotic materials from aqueous solutions by using the adsorbent systems containing nano clay", Parisa Meshinchi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**24)** "Synthesis and evaluation of carboxymethyl cellulose grafted methacrylic acid/$Fe_3O_4$ - based nanocomposite hydrogels for removal of Cu (II) from aqueous solutions", Arezou Pourlotfali, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**25)** "Synthesis and evaluation of nanocomposite hydrogels based on carboxymethyl cellulose grafted polyacrylamide-containing nanoclay for wastewater treatment", Omid Aghamohammadi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**26)** "Synthesis and evaluation of nanocomposite hydrogels based on alginate grafted acrylamide containing graphene oxide nanoparticles for industrial wastewater treatment", Sevda Pashaei Fakhri, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**27)** "Synthesis and evaluation of nanocomposite hydrogels based on carboxymethyl cellulose grafted acrylamide containing carbon-based nanofiller for industrial wastewater treatment", Elmira Ghargharechi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**28)** "Synthesis and evaluation of nanocomposite hydrogels based on sodium alginate grafted acrylamide containing carbon-based nanofiller for industrial wastewater treatment", Fateh Karimzadeh Halimi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**29)** "Synthesis and evaluation of nanocomposite hydrogels based on carboxymethyl cellulose-alginate blend/graphene oxide for dye removal from wastewater", Abbas Mostafaei, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**30)** "Synthesis and evaluation of poly(methacrylic acid-co-acrylamide) nanocomposite

hydrogels containing nanoclays for removal of dyes from wastewater", Hamid Safarzadeh, Chemical Engineering Department, Caspian Faculty of Engineering, University of Tehran (Completed)

**31)** "Synthesis and evaluation of biopolymer-based nanocomposite hydrogels graft by poly(methacrylic acid-co-acrylamide) for removal of dyes from aqueous solutions", Hamzeh Khatooni, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**32)** "Stabilization of polyoxomethals and perovskites on polyvinylidene fluoride and polysulfone based polymeric membranes for industrial wastewater treatment", Abolfazl Sadeghi Azar, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**33)** "Synthesis of carboxymethyl cellulose/hydroxyapatite/activated carbon (CMC/HAp/AC) composite and its use as an adsorbent in the removal of cationic dyes", Mahdieh Vatankhah, Polymer Engineering Department, Faculty of Chemistry, University of Tabriz (Completed)

**34)** "Preparation of nanocomposite adsorbents based on biopolymer containing clay modified by organic-metal frameworks (MOF) and their use in the adsorption of heavy metals from aqueous solutions", Amirreza Jaafari Monavvar, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**35)** "Evaluation of UV/$H_2O_2$/$O_3$ advanced oxidation process for reduction of TBC from Tabriz Petrochemical wastewater", Saeid Sheikhi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**36)** "Investigation of removal of heavy metals from aqueous solutions using modified waste petroleum coke", Behrad Barzegar, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**37)** "Surface modification of cellulose fibers derived from Luffa Cylindrica biopolymer by organic monomers for removal of heavy metals from aqueous solutions", Mehran Alizadeh, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**38)** "Modification investigation of activated carbon obtained from Luffa Cylindrica by magnetic nanoparticles in composites based on biopolymer containing them for removal of antibiotics from aqueous solutions", Baharak Fakhimi Najafi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**39)** "Modification of activated carbon obtained from Luffa Cylindrica by using Layered

Double Hydroxides (LDH) in composites based on biopolymer containing them for removal of cationic dyes from aqueous solutions", Shabnam Imani, Polymer Engineering Department, Faculty of Chemistry, University of Tabriz (Completed)

**40)** "Use of natural and synthetic zeolites as an effective and efficient adsorbent in removing color molecules from aqueous solutions", Touhid Hosseini, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**41)** "Preparation of composite adsorbents based on biopolymer - containing biochar and magnetic nanoparticles to remove dye contaminants from aqueous solution", Mina Mollazadeh Azari, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**42)** "Preparation of biochar-based adsorbents modified by magnetic nanoparticles and layered double hydroxides (LDH) to remove dye contaminants from aqueous solution", Shima Abdollahian, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**43)** "Evaluation the performance of hydrochar from licorice root pulp as adsorbent in removal of cationic dyes from aqueous solutions", Ali Akbari, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**44)** "Preparation of biopolymer-based composite hydrogels containing hydroxyapatite modified by layered double hydroxides (LDH) to remove dyes from aqueous solutions", Alireza Masroor, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**45)** "Evaluation of adsorption performance of nanocomposite hydrogel adsorbent of xanthan gum containing magnetic biochar nanoparticles to remove dyes from aqueous solutions", Alireza Zavar Golzari, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**46)** "Preparation of adsorbent obtained from walnut shell biochar modified by nanoparticles and metal-organic framework (MOF) for the removal of heavy metals from aqueous solutions", Armin Hamdi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**47)** "Fabrication of magnetic composite adsorbent obtained from biochar modified by metal-organic framework based on zirconium (MOF-808) to remove cationic dyes from aqueous solution", Kosar Rasoolpour, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**48)** "Modification of carbon obtained from melamine waste by starch and magnetic

nanoparticles as adsorbent for antibiotics removal from aqueous solutions", Somayyeh Rezaei Aghdam, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**49)** "Preparation of magnetic nanocomposite based on carbon obtained from pyrolysis process and using it as an adsorbent for cationic dyes' removal from aqueous solution", Zahra Mahdavi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**50)** "Development of copolymer hydrogel based on chitosan grafted with polyacrylamide containing Diatomaceous soil modified with layered-double hydroxide (LDH) for cationic dye removal from aqueous solution", Mohaddeseh Mardani, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**51)** "Fabrication of composite copolymer hydrogel based on biopolymer containing clay modified with ZIF-9 to remove heavy metal ions from aqueous solutions", Roghayyeh Rashidi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**52)** "Preparation of magnetic composite based on biochar obtained from corn straw modified with polydopamine to remove cationic dyes from aqueous solutions", Aylar Gholipour, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**53)** "Preparation of biocomposite hydrogel grafted with polyacrylamide containing magnetic coke as an adsorbent to remove cationic dyes from aqueous solutions", Ali Abdollahi Beirami, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**54)** "Preparation of polyvinylidene fluoride-polystyrene nanocomposite blend containing MXene nanoparticles for use in dielectric capacitors", Sima Ahmadbeygi, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**55)** "Experimental study of the effect of adding silica nanoparticles and carbon fiber on heat build-up and heat deflection temperature values of Unplasticized polyvinyl chloride-based composites", Masoud Naserifard, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**56)** "Preparation copolymer nanocomposite hydrogel based on biopolymer grafted with polyacrylamide containing MXene nanoparticles for dye removal from aqueous solutions", Ziba Binavayan, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**57)** “Fabrication and adsorption properties evaluation of composite hydrogel adsorbent containing MIL type of metal-organic framework coated by covalent-organic framework (COF) for antibiotic removal from aqueous solutions”, Ata Hosseini, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**58)** “Fabrication and adsorption properties evaluation of composite hydrogel adsorbent containing ZIF type of metal-organic framework coated by covalent-organic framework (COF) for dye removal from aqueous solutions”, Saba Behnia, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**59)** “Development of composite aerogel adsorbent containing ZIF-8 type of metal-organic framework for antibiotic removal from aqueous solutions”, Atena Hadizad, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

**60)** “Development of composite aerogel adsorbent containing ZIF-67 type of metal-organic framework for anionic dye removal from aqueous solutions”, Neda Moeinpour, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completing)

### d) MSc Thesis Advising

**1)** “Preparation and evaluation of fluorinated nanocomposite proton exchange membrane with high selectivity for DMFC applications”, Mir Mohammad Arif, Islamic Azad University Ahar Barach (Completed)

**2)** “Simulation and improvement process conditions of LTSC and HTSC reactors of Tabriz oil refinery”, Rohollah Timareh, Islamic Azad University Ahar Barach (Completed)

**3)** “Active packaging of carrot juice with nanocomposite film based on LDPE-metallic nanoparticles and organically modified nanoclay”, Leila Poursharif, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**4)** “Active packaging of Tabriz traditional cheese with nanocomposite film based on LDPE-metallic nanoparticles and organically modified nanoclay”, Parisa Abdolsattarfi, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**5)** “Active packaging of ground beef with nanocomposite film based on LDPE-metallic nanoparticles and organically modified nanoclay”, Omid Sadeghian Kaffash, Department of Food Science and Technology, Faculty of Agriculture, University of Tabriz (Completed)

**6)** “Modelling the migration of metal nanoparticles from polyethylene nanocomposites films as active food packaging”, Aynaz Molayi, Department of Food Science and

Technology, Faculty of Agriculture, University of Tabriz (Completed)

**7)** "Preparation of (acrylic-polyaniline) composite adhesive and investigating its mechanical and electrical properties", Milad Azami, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**8)** "Removal of heavy metals from industrial wastewater by modern crystallization process and investigation of effective parameters on its efficiency", Parvaneh Khalati Barenj, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**9)** "Influence of tire co-feeding on the properties of products in the catalytic (zeolite) pyrolysis of poplar wood", Seyed Milad Hosseini, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**10)** "Influence of polyethylene terephthalate co-feeding on the properties of products in the catalytic (zeolite) pyrolysis of poplar wood", Yousef Keramatian, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**11)** "Development and characterization of next generation flexible dielectrical and electrical composites", Mehdi Jasourian, Material Engineering Department, Faculty of Mechanical Engineering, University of Tabriz (Completed)

**12)** "Synthesis and characterization of chitosan/polyacrylic acid/$Fe_3O_4$ magnetic nanocomposite hydrogel and evaluation of its application for deltamethrin pesticide removal form aqueous solutions", Hossein Rasouli, Department of Organic and Biochemistry, Faculty of Chemistry, University of Tabriz (Completed)

**13)** "Removal of copper and nickel heavy metals from aqueous solution using magnetic composite carbon nanotube/zinc oxide/manganese ferrite", Ahsan Sagheb Asl, Faculty of Chemical and Petroleum Engineering, University of Tabriz (Completed)

**14)** "Investigation of mechanical properties of montmorillonite and graphene nanocomposites", Jalil Navadeh Soleiman, Material Engineering Department, Faculty of Mechanical Engineering, University of Tabriz (Completed)

**15)** "Performance Investigation char obtained from the pyrolysis of textiles as a catalyst in the polymerization process of different bio-oil phase materials obtained from this pyrolysis", Mahrou Moshaver, Chemical and Petroleum Engineering, University of Tabriz (Completed)

**16)** "Studying the effect of Nickel - Zeolite 4A catalyst on the pyrolysis process of waste paper for fuel production", Hassan Yari, Chemical and Petroleum Engineering, University of Tabriz (Completed)

**17)** "Experimental investigation of the electrocatalytic performance of Metal_Organic Frameworks and MXene composites to produce clean fuel through alkaline water electrolysis", Siamak Pashajavid, Chemical and Petroleum Engineering, University of Tabriz (Completed)

**18)** "Fabrication and evaluation of thermal and mechanical properties of polyepoxide/kaolin/graphene oxide composite", Atefeh Sharifnezhad, Material Engineering Department, Faculty of Mechanical Engineering, University of Tabriz (Completed)

**19)** "Experimental study on the effect of adding polyaniline-modified graphene on the electrical behaviour of TPU/PVDF nanocomposite alloy in flexible actuators", Asma Bayazi, Chemical and Petroleum Engineering, University of Tabriz (Completing)

## 11. Teaching Experiences

**Ph.D. Courses**

- Engineering Properties of Polymers

**M.Sc. Courses**

- Physical and Mechanical Properties of Polymers and Composites
- Advanced Fluid Mechanics
- Polymer Processing
- Polymer Technology
- Advanced Numerical Methods

**B.Sc. Courses**

- Unit Operation I
- Chemical Engineering Thermodynamics I
- Principles of Polymerization
- Petrochemical Processes
- Fluid Mechanics
- General Chemistry
- Petroleum Fractions Calculations
- Numerical Methods

## 12. Memberships

- Iranian Polymer Society
- Iranian Chemical Engineering Society
- Iran National Science foundation (INSF) as Reviewer
- Iran Society of Nanotechnology