

Vitae

Mahmoud Zarei, Ph.D. (Associate professor)

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Publications and presentations:

1. **105** papers in international ISI indexed Journals,
2. **62** papers in international and national scientific conferences,
3. **1** books/book chapters,
4. **2** national patents.

Citation acquired from ISI database on 2025/08/03:

Total citation: 5127
H-index=40

Personal Data:

Name	Surname	Date of Birth	Nationality	Sex	Marital Status
Mahmoud	Zarei	1972	Iranian	Male	Married

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Educational Background: (Last One First)

Certificate Degree	Field of Specialization	Name of Institution Attended	Date Received
Ph.D.	Applied Chemistry	Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran	2009
M.Sc.	Applied Chemistry	Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran	1999
B.Sc.	Applied Chemistry	Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran	1996

Title of Post-Graduate Thesis:

The study and optimization of CO₂ absorption process by some of new alkanolamine solutions

Title of Doctorate Thesis:

Investigation of peroxi-coagulation process for electrochemical removal of traces organic dyes from contaminated waters by activated carbon and carbon nanotubes

Teaching Experiences:

Title of Course	Level	Dates		Name of Institution
		From	To	
Industrial Chemistry 1	BSc	2014	Present	University of Tabriz
Laboratory of Industrial Chemistry	BSc	2009	Present	University of Tabriz
Laboratory of Principles of water and wastewater treatment	BSc	2007	Present	University of Tabriz
Laboratory of General Chemistry	BSc	2007	Present	University of Tabriz
Chemical Reaction Engineering	MSc	2017	Present	University of Tabriz
Instrumental Control	MSc	2016	Present	University of Tabriz
Green chemistry	BSc	2019	Present	University of Tabriz
processes of Water and Wastewater Treatment	MSc	2019	Present	University of Tabriz
Advanced processes of Water and Wastewater Treatment	PhD	2020	Present	University of Tabriz
Seminar	MSc	2018	Present	University of Tabriz
Laboratory of unit operation	BSc	2019	Present	University of Tabriz
Identification and characterization of materials	MSc	2019	Present	University of Tabriz
Chemistry 2	BSc	2013	2014	Tabriz Islamic Art University
Laboratory of Applied Inorganic Chemistry	MSc	2013	Present	Tabriz Islamic Art University
Applied Inorganic Chemistry	MSc	2012	Present	Tabriz Islamic Art University
Water and Wastewater Treatment	BSc	2012	Present	Payame Noor University of Tabriz
Corrosion	BSc	2012	2013	Payame Noor University of Tabriz
Principles of Industrial Chemistry Calculations	BSc	2011	2013	Payame Noor University of Tabriz
Industrial Chemistry 1	BSc	2013	Present	Payame Noor University of Tabriz
General Chemistry	BSc	2011	2014	Sahand University of Technology
Analytical Chemistry	BSc	2011	2014	Sahand University of Technology
Analytical Methods of Inorganic Materials	BSc	2011	2014	Sahand University of Technology

Title of Course	Level	Dates		Name of Institution
		From	To	
Laboratory of General Chemistry	BSc	2011	2012	Sahand University of Technology
Membrane processes	BSc	2011	2012	Technical and Vocational University
Water and Wastewater Treatment	Undergraduate	2010	2018	Technical and Vocational University
Water and Wastewater Treatment	BSc	2015	2018	Technical and Vocational University
HSE	BSc	2015	2018	Technical and Vocational University
Laboratory of Principles of water and wastewater treatment	Undergraduate	2010	2018	Technical and Vocational University
Laboratory of General Chemistry (1 & 2)	BSc	2001	2004	University of Tehran
Advanced instrumental methods of pollutants analysis	MSc	2014	2015	Tabriz University of Medical Sciences

ADVISOR: Ph.D. and M.Sc. Degrees:

No.	Student's Full Name	Degree	Date	Title of Thesis and University
1	Leila Moradkhannejad	M.Sc.	2009-2011	Preparation of nitrogen doped TiO ₂ nanoparticles as a self-cleaning pigment with visible-light photocatalysis activity & investigation of photocatalytic efficiency for treatment of contaminated waters with organic dyes (Advisor), Department of Applied Chemistry, Faculty of Chemistry, Urmia University, Urmia, Iran
2	Saeed Fallah	M.Sc.	2010-2012	Bioremediation of dyes with different structures in contaminated waters using macroalga <i>Enteromorpha</i> sp. (Advisor), Department of Plant Biology, Faculty of Natural Science, University of Tabriz, Tabriz, Iran
3	Mahdiee Safarpour	M.Sc.	2010-2012	Investigation of the combined photocatalytic oxidation and photoelectro-Fenton processes using TiO ₂ nanoparticles and modified graphite electrode with carbon nanotubes for the treatment of waters contaminated with dyes (Co-Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
4	Hadi Marandizadeh	M.Sc.	2011-2012	Preparing of doped titanium nanoparticles sensitive to visible light and its application in the combined photocatalysis – photoelectroFenton process to remove organic dyes under visible light (Co-Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
5	Samaneh Torbati	Ph.D.	2008-2012	The investigation of ability of <i>Lemna minor</i> and <i>Nasturtium officinale</i> in remediation of polluted waters by synthetic dyes (Co-Advisor), Department of Plant Biology, Faculty of Natural Science, University of Tabriz, Tabriz, Iran
6	Fateme Vafaei Mamagani	Ph.D.	2008-2013	Investigation the ability of biodegradation of organic dyes from contaminated water by <i>Azolla filiculoides</i> and <i>Hydrocotyle vulgaris</i> (Co-Advisor), Department of Plant Biology, Faculty of Natural Science, University of Tabriz, Tabriz, Iran

No.	Student's Full Name	Degree	Date	Title of Thesis and University
7	Afsaneh Azadi Oskooyi	M.Sc.	2011-2012	Removal of heavy metals from water by adsorption with inorganic synthetic adsorbents (Supervisor), Department of Applied Chemistry, Faculty of Engineering, Islamic Azad University, Saveh Branch, Iran
8	Amaneh Mohammadnejad	M.Sc.	2011-2012	Quantitative and qualitative study of chemical composition of essential oils from some populations of <i>Heracleum persicum</i> fruits and their biological activity (Co-Advisor), Department of Chemistry, Faculty of Basic Science, Azarbaijan Shahid Madani University, Tabriz, Iran
9	Azam Ebrahimi	M.Sc.	2011-2012	(Co-Advisor), Department of Chemistry, Faculty of Basic Science, Azarbaijan Shahid Madani University, Tabriz, Iran
10	Adel Rahnomon	M.Sc.	2012-2013	Immobilization of iron oxide nanoparticles on Montmorillonite nanoparticles and using the prepared nano composite to remove a metal complex dye from aqueous solution (Co-Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
11	Omkolsoom Zahedi Hesar	M.Sc.	2013-2014	Removal of reactive organic dyes from contaminated waters by synthesized Zeolites and optimization of the process using response surface methodology (Supervisor), Department of Chemical engineering, Faculty of Engineering, Islamic Azad University, Ahar Branch, Iran
12	Leila Khadir	M.Sc.	2013-2014	The use of modified zeolites for removal of the organic dyes from contaminated waters and modeling of the process by artificial neural network (Supervisor), Department of Chemical engineering, Faculty of Engineering, Islamic Azad University, Ahar Branch, Iran
13	Ramin Dehgani	M.Sc.	2013-2014	Photocatalytic decolorization of a dyestuff solution by a polyoxometalate containing tungsten metal (Co-Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
14	Hasan Azizi Nahand	M.Sc.	2013-2014	Simultaneous removal of arsenic and bacteria from water using metal-treated chitosan based nanosorbents (Co-Supervisor), Department of Chemistry, Faculty of Science, University of Maragheh, Maragheh, Iran
15	Arezadat Sajadi	M.Sc.	2013-2014	Archaeometric Analysis of a Leather Shoe Belonging to Tapeh Asharf of Isfahan and the Study of Its Manufacturing Technology (Supervisor), Faculty of Applied Arts, Tabriz Islamic Art University, Tabriz, Iran
16	Sommaye Mohammadi Amiri	M.Sc.	2013-2015	Archaeometric Analysis of carved patterns earthenware enamel, amol, s style (Co-Supervisor), Faculty of Applied Arts, Tabriz Islamic Art University, Tabriz, Iran
17	Behnam Beigzadeh	M.Sc.	2012-2013	Biosynthesis and structural characteristics of metal nanoparticles by plant extracts (Co-Advisor), Azarbaijan Shahid Madani University, Tabriz, Iran
18	Zeynab Yaghoubi	M.Sc.	2013-2014	Immobilization of phosphomolybdic acid on electrode and the removal of a dyestuff from contaminated solution by photoelectrocatalytic system (Co-Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
19	Hamid Reza Irani	M.Sc.	2015-2016	The Studies of Making Technology Two Leather Footwear Samples of The Salt Men of Chehrabad Zanjan: An Archaeometric Analysis (Co-Supervisor), Faculty of Applied Arts, Tabriz Islamic Art University, Tabriz, Iran
20	Mahdi Kazemzadeh	M.Sc.	2013-2014	Removal of organic dyes from wastewater with using graphene oxide nanosheets synthesized from graphite powder (Advisor), Department of Chemical engineering, Faculty of Engineering, Islamic Azad University, Ahar Branch, Iran

No.	Student's Full Name	Degree	Date	Title of Thesis and University
21	Jalal Hassanzadeh Sefidan	M.Sc.	2013-2014	The use of natural clinoptolite zeolite for some heavy metal removal from contaminated water by adsorption method (Advisor), Department of Applied Chemistry, Faculty of Chemistry, Urmia University, Urmia, Iran
22	Ayoob Sobhani	Ph.D.	2015-2017	Study of physiological effects and fate of phenanthrene and pyrene in wheat (<i>Triticum aestivum</i> L.) (Co-Advisor), Department of Plant Biology, Faculty of Natural Science, University of Tabriz, Tabriz, Iran
23	Mahnaz Afsharnia	Ph.D.	2015-2019	Using of different bioremediation scenarios in remediation of Tabriz-refinery oil polluted soils and monitoring of bioremediation by enzymatic and biological indices (Co-Advisor), Department of Soil Science, Faculty of Agriculture, University of Tabriz, Tabriz, Iran
24	Ramin Nasiri	Ph.D.	2016-2018	Three-dimension graphene nanocomposites containing iron oxide nanoparticles: synthesis, characterization and some application (Co-Advisor), Department of Organic Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
25	Farzaneh Beheshti Nahand	M.Sc.	2017-2018	Investigation of three-dimensional graphene as cathode electrode for the electrochemical removal of pharmaceuticals from contaminated water (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
26	Sanaz Adalatizadeh Agdam	Ph.D.	2016- 2022	Proteomic analysis of foreign and landraces of Fennel (<i>Foeniculum vulgare</i>) under salt stress and exogenous salicylic acid (Advisor), Department of Plant Biotechnology and Breeding, Faculty of Agriculture, University of Tabriz, Tabriz, Iran
27	Parisa Meshinchi	M.Sc.	2017-2018	Investigation of antibiotic materials removal from aqueous by using of the absorbent systems containing nanoclay (Advisor), Department of Process Engineering, Faculty of Chemical and petroleum Engineering, University of Tabriz, Tabriz, Iran
28	Laleh Samaei	M.Sc.	2017-2018	Synthesis of ZnFe-Cl nanolayered double hydroxide and its application in the sonocatalytic process to remove colored pollutants (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
29	Mahnaz Alizadeh	M.Sc.	2018-2019	Synthesis of different morphologies of metal nanoparticles and studying of their catalytic properties by optical method (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
30	Somaieh Aamali	M.Sc.	2018-2019	Investigation of Fe@Fe ₂ O ₃ /three dimensional graphene as composite cathode electrode for the electrochemical removal of organic compounds from contaminated water (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
31	Maryam Zarenejhad	M.Sc.	2018-2020	Investigation of functionalized magnetic graphene oxide by different ligands to removal of heavy metals from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
32	Masood Ebratkhahan	Ph.D.	2018- 2022	Investigation of the efficiency of graphene hydrogel and graphene quantum dot-based cathode electrodes in the electro-Fenton process for the treatment of waters contaminated with antibiotics (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran

No.	Student's Full Name	Degree	Date	Title of Thesis and University
33	Mahsa Haj Ahmadi	Ph.D.	2018- 2022	Comparison of various Fe-based heterogeneous catalyst's efficiency in electro-Fenton process for treatment of pharmaceutical organic pollutants from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
34	Tala Babaei	M.Sc.	2018-2019	Electrochemical elimination of phenazopyridine drug waste by using mixed metal oxide anode electrodes and carbon cathode from contaminated water (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
35	Abolfazl Ahmadi Somee	M.Sc.	2018- 2020	Synthesis of Iron (II) doped carbon aerogel and investigation of its electrochemical ability for removal of Diazinon from contaminated water (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
36	Saeideh Jodeiri Sabooni	M.Sc.	2018-2019	Preparation and study of zinc oxid - carbon quantum dots nanoparticles and evaluation of their photocatalyst behaviors (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
37	Sajad Lotfi	M.Sc.	2018-2019	Synthesis of Fe ₃ O ₄ magnetic nanoparticles and study the effect of polymer coating on heavy metals removal from wastewater (Advisor), Department of Physics, Faculty of Physics, University of Tabriz, Tabriz, Iran
38	Tala Babaei	Ph.D.	2019-	Synthesis of polypyrrole and graphene oxide-based composites doped with TiO ₂ and MnO ₂ nanoparticles and investigation of their ability as electrode to removal of anticancer pharmaceuticals from wastewaters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
39	Aliyeh Hasanzadeh	Ph.D.	2017- 2021	Investigation of photo-electrochemical oxidation process using the cathode electrode modified by the hybride of Fullerene (C ₆₀) – carbon nanotubes for the treatment of waters contaminated with pesticides (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
40	Ramin Nourouzi	M.Sc.	2020- 2021	Electrochemical removal of Fluoxetine as a pharmaceutical contaminant from contaminated water by using mixed metal oxide anode electrodes and carbon cathode (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
41	Salar Maleki	M.Sc.	2020-2022	Investigation of functionalized magnetic graphene oxide by iminodiacetic acid and EDTA ligands to removal chromium from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
42	Tala Nafat Azari	M.Sc.	2020- 2022	Effective degradation of ciprofloxacin by electro Fenton-like process and anodic oxidation using Mixed metal oxides (MMO) on titanium (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
43	Elham Asgari	M.Sc.	2020- 2022	Investigation of functionalized magnetic graphene oxide using glycine and hexamethylenediamine ligands for the removal of Pb ²⁺ from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran

No.	Student's Full Name	Degree	Date	Title of Thesis and University
44	Sina Mohammadi	M.Sc.	2020- 2022	Investigation of reduced graphene oxide/ Tin (IV) oxide/ stainless steel mesh composite system as cathode electrode and reduced graphene oxide/magnetite /cotton fabric composite system as heterogeneous catalyst for electrochemical treatment of prednisolone from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
45	Somaieh Alipour	M.Sc.	2018-2020	Synthesis and optimization of gelatin-meta acrylic acid biodegradable porous super absorbent hydrogels and its review for removal medicinal pollutants from wastewater (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
46	Bahman Abdollahi	Ph.D.	2017- 2022	Preparation of dicarboxylic acid based metal organic frameworks and evaluation of their efficiency in removing of arsenic from aqueous solution (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
47	Mahsa Naseri	M.Sc.	2018-2021	Synthesis and characterization of porous hydrogel nanocomposite based on alginate - methacrylic acid - graphene oxide to removal contamination from aqueous solutions (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
48	Naeimeh Jesarati	M.Sc.	2021-2023	Evaluation of the sonophotocatalytic activity of Fe(III) doped ZnO nanoparticles prepared by planetary ball mill method to degrade malachite green dye (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
49	Ali Ranjbar	M.Sc.	2021-2023	synthesis of metal doped carbonaceous aerogel and investigating its efficiency in electrochemical removal of 5-fluorouracil drug waste from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
50	Alireza Gheshlaghi	M.Sc.	2020-2024	Investigation of the efficiency of a batch anodic oxidation system for electrochemical removal of the cefazolin pharmaceutical pollutant from the aqueous medium by mixed metal oxide anode and carbonaceous cathode (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
51	Mona Fathnejad Kazemi	M.Sc.	2020-2023	Synthesis of metal-organic framework UiO-66 nanoparticles functionalized with iminodiacetic acid to remove mercury from contaminated water (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
52	Ehsan Narimani	Ph.D.	2020- 20??	Synthesis, characterization and deposition of TiO ₂ nanoparticles doped with different dopants and investigation of its application in the organic pollutants' degradation (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
53	Athar Najafi	M.Sc.	2022-2023	Sonophotocatalytic degradation of organic pollutants using mesoporous nickel oxide nanoparticles synthesized in deep eutectic solvent (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
54	Parya Rostamzadeh	Ph.D.	2020- 20??	Preparation and optimization of biocompatible nanocomposite hydrogels based on polyvinyl alcohol and chitosan polymers with antibacterial and anti-hemorrhage properties for the chronic skin wounds (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran

No.	Student's Full Name	Degree	Date	Title of Thesis and University
55	Parisa Yosefzadeh	M.Sc.	2022-2025	Synthesis and investigation of the efficiency of the MIL(88) electrode as a cathode in the electrofenton process to remove the antibiotic erythromycin from contaminated water (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
56	Hananeh Mortaghi Ghasemi	M.Sc.	2022-2025	Preparation and performance evaluation of Chitosan-Thiourea cathode on the titanium mesh substrate in the Electro-Fenton process for removal of ofloxacin antibiotic from contaminated water (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
57	Sima Asgari	M.Sc.	2021-2025	Investigation graphene oxide functionalized with 1,8 – dihydroxyanthraquinone as a cathode in the electro-Fenton process to remove pharmaceutical pollutants from contaminated waters (Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
58	Fateme Shirzadi	M.Sc.	2023-2025	Synthesis of cobalt doped carbonaceous aerogel and investigating its efficiency in electrochemical removal of diazinon pesticide from contaminated waters (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
59	Seyyed Reza Tabatabai	M.Sc.	2021-2024	Improving the behavior of petroleum bitumen by adding ethylene vinyl acetate and titanium dioxide and zinc oxide nanomaterials (Co-Supervisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
60	Sahar Ziaalmolki	M.Sc.	2022-2024	Synthesis and study of structural and optical properties of g-C ₃ N ₄ /Fe ₃ O ₄ /ZnO and g-C ₃ N ₄ /Fe ₃ O ₄ nanocomposites (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
61	Sajjad Lotfi	M.Sc.	2018-2021	Synthesis of Fe ₃ O ₄ magnetic nanoparticles and study the effect of polymer coating on heavy metals removal from wastewater (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
62	Fateme Asadpour	M.Sc.	2019-2022	Production of Polyhydroxyalkanoates (PHAs) by Methanotrophic bacteria using methane as carbone source (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
63	Seyyed Reza Seyyedi	M.Sc.	2021-2023	Electrophoretic deposition of TiO ₂ nanoparticles and application in organic pollutant (methylene blue) degradation (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
64	Sara Heidari	M.Sc.	2021-2023	The effect of ultrasound process on the physicochemical and microbial characteristics of whipped cream (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
65	Shima Shafiei Ahmadi	Ph.D.	2020- 2025	Leather Industry Wastes Biorefinement with the Aim of Energy and Material Recycling (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
66	Mahdiee Asl Galichebaf	M.Sc.	2021-2023	Synthesis of chitosan-based composites for optimization and study of their performance in the removal of heavy metals from contaminated water by adsorption method (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
67	Taher Golizadeh	M.Sc.	2023-	Investigating the effect of glow discharge on the amount of substances released from the body of PET bottles into drinking water (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran

No.	Student's Full Name	Degree	Date	Title of Thesis and University
68	Masomeh Pouyesh	M.Sc.	2023-	Investigating the antibacterial effects of chitosan/polyvinyl alcohol treated with cold plasma on <i>Pseudomonas aeruginosa</i> (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran
69	Mahdieh Abdolalipour Sakha	M.Sc.	2020-2023	Synthesis of Fe ₃ O ₄ /C nanocomposite and study the effect of Carbon coating on Pb ²⁺ removal from polluted waters (Advisor), Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran

Research Activities (Supported by National and Industrial Research Grants):

No.	Title of Project	Dates		Project Supporter
		From	To	
1	Removal of phenol from the wastewater of olefin unite of Tabriz petrochemical company using combined photoelectron Fenton-photocatalysis as an advanced oxidation process حذف فنل از پساب خروجی واحد اولفین شرکت پتروشیمی تبریز با استفاده از فرآیند ترکیبی اکسایش پیشرفته فتوالکترافتون-فتوکاتالیز (همکار طرح)	(2010) ۱۳۸۹	(2011) ۱۳۹۰	Petrochemical Research & Technology Company شرکت پژوهش و فناوری پتروشیمی
2	Application of combined advanced oxidation processes based on carbon nanotubes and zinc oxide nanoparticles for treatment of contaminated waters by dyes: Modeling and optimization of process using artificial neural networks and response surface methodology استفاده از فرآیندهای ترکیبی اکسایش پیشرفته بر پایه نانولوله های کربنی و نانوذرات اکسید روی جهت تصفیه آبهای آلوده به مواد رنگزا: مدلسازی و بهینه سازی فرآیند با استفاده از شبکه های عصبی مصنوعی و روش رویه پاسخ (همکار طرح)	(2010) مهرماه ۱۳۸۹	(2011) مهرماه ۱۳۹۰	Iran Science Elites Federation (ISEF) اعتبار پژوهشی بنیاد ملی نخبگان ویژه استادیاران جوان عضو بنیاد
3	Electrochemical-photocatalytic treatment of organic dye aqueous solutions and investigation of the produced intermediates using instrumental analytical methods تصفیه الکتروشیمیایی- فتوکاتالیزی آبهای آلوده به مواد آلی رنگزا و بررسی حدواسطهای حاصل با استفاده از روشهای تجزیه دستگاهی (همکار طرح)	(2010) آذرماه ۱۳۸۹	(2011) اردیبهشت ۱۳۹۰	University of Maragheh حوزه معاونت پژوهشی دانشگاه مراغه

No.	Title of Project	Dates		Project Supporter
		From	To	
4	Application of the photoelectro-Fenton process for electrochemical treatment of contaminated waters by organic dyes using carbon cloth cathode: Optimization of process using response surface methodology استفاده از فرآیند فتوالکترافتون جهت تصفیه الکتروشیمیایی پسابهای حاوی مواد رنگزای آلی با استفاده از کاتد کربن پارچه‌ای: بهینه سازی فرآیند با استفاده از روش رویه پاسخ (همکار طرح)	(2011) آذر ماه ۱۳۹۰	(2012) آذر ماه ۱۳۹۱	Islamic Azad University Miyaneh Branch حوزه معاونت پژوهشی دانشگاه آزاد میانه

Publications:

A: Books

No.	Title	Type of Work		Publisher	Year	Authors
		Translation	Compilation			
1	Environmental Applications of Activated Carbon and Carbon Nanotubes; <u>Chapter 1</u> in Activated Carbon: Classifications, Properties and Applications		*	NOVA Science Publisher, Inc. USA	2011, second quarter	A. R. Khataee, S. Aber, M. Zarei , M. Sheydaei

Publications:

B: Papers

No	Title	Journal's Name	Date	Volume Page No.	Authors
1	Absorption of carbon dioxide into I) aqueous solutions of N,N-dimethylethanolamine II) aqueous blends of mono and diethanolamine with N,N-dimethylethanolamine	Chem. Biochem. Eng. Q. (ISI)	2005	19 (3) 297-302	N. Daneshvar, D. Salari, H. Zamzami, M. Zarei , S. Aber
2	بررسی فرآیند جذب کربن دی اکسید توسط محلولهای آمینی تقویت شده با مواد افزودنی	ماهنامه تخصصی علمی - ترویجی فرآیند نو	۱۳۸۷	خرداد - تیر شماره ۱۴	ن. دانشور، م. زارعی
3	فرآیند اکسایش آب فوق بحرانی و کاربرد آن در تصفیه پسابهای صنعتی	مجله مهندسی شیمی ایران	۱۳۸۷	6 (33) 71-82	ن. دانشور، س. عابری، م. س. سیددراجی، م. زارعی، م. ح. رسولی فرد
4	Electrochemical treatment of dye solution containing C.I. Basic Yellow 2 by the peroxi-coagulation method and modeling of experimental results by artificial neural networks	Journal of Electroanalytical Chemistry (ISI)	2009	629 117-125	D. Salari, A. Niaei, A.R. Khataee, M. Zarei
5	Peroxi-coagulation degradation of C.I. Basic Yellow 2 based on carbon-PTFE and carbon nanotube-PTFE electrodes as cathode	Electrochimica Acta (ISI)	2009	54 6651-6660	M. Zarei , D. Salari, A. Niaei, A.R. Khataee

No	Title	Journal's Name	Date	Volume Page No.	Authors
6	Application of response surface methodology for optimization of peroxi-coagulation of textile dye solution using carbon nanotube-PTFE cathode	Journal of Hazardous Material (ISI)	2010	173 544-551	M. Zarei , A. Niaei, D. Salari, A.R. Khataee
7	Application of microalgae Chlamydomonas sp. for biosorptive removal of a textile dye from contaminated water: modeling by neural network	Environmental Technology (ISI)	2009	30 1615-1623	A.R. Khataee, M. Zarei , M. Pourhassan
8	Removal of four dyes from aqueous medium by the peroxi-coagulation method using carbon nanotube-PTFE cathode and neural network modeling	Journal of Electroanalytical Chemistry (ISI)	2010	639 167-174	M. Zarei , D. Salari, A. Niaei, A.R. Khataee
9	Development of Artificial Neural Network Model for Bioremediation of Malachite Green by Three Microalgae	Clean-Soil, Air, Water (ISI)	2010	38 96 – 103	A.R. Khataee, M. Zarei , M. Pourhassan
10	Biological Treatment of Dye Solution by Macroalgae Chara sp.: Effect of Operational Parameters, Intermediates Identification and Artificial Neural Network Modeling	Bioresource Technology (ISI)	2009	101 2252-2258	A.R. Khataee, G. Dehghan, A. Ebadi, M. Zarei , M. Pourhassan
11	Application of response surface methodology for optimization of azo dye removal by oxalate catalyzed photoelectro-Fenton process using carbon nanotube-PTFE cathode	Desalination (ISI)	2010	258 112-119	A.R. Khataee, M. Zarei , L. Moradkhannejhad
12	Optimization of photocatalytic treatment of dye solution on supported TiO ₂ nanoparticles by central composite design: Intermediates identification	Journal of Hazardous Material (ISI)	2010	181 886-897	A. R. Khataee, M. Fathinia, S. Aber, M. Zarei
13	Neural network modeling of biotreatment of triphenylmethane dye solution by Cladophora sp.	Chemical Engineering Research and Design (ISI)	2011	89 172-178	A.R. Khataee, G. Dehghan, M. Zarei , A. Ebadi, M. Pourhassan
14	Photoelectro-Fenton combined with photocatalytic process for degradation of an azo dye using supported TiO ₂ nanoparticles and carbon nanotube cathode: neural network modeling	Electrochimica Acta (ISI)	2010	55 7259-7265	M. Zarei , A.R. Khataee, R. Ordikhani-Seyedlara, M. Fathinia
15	Electrochemical Treatment of Dye Solution by Oxalate Catalyzed Electro-Fenton Process Using Carbon Nanotube-PTFE Cathode: Optimization and Modeling by Central Composite Design	Clean-Soil, Air, Water (ISI)	2011	39 482-490	Ali R. Khataee, M. Zarei , Amir R. Khataee
16	Photocatalytic treatment of a dye solution using immobilized TiO ₂ nanoparticles combined with electro-Fenton process: Optimization of operational parameters	Journal of Electroanalytical Chemistry (ISI)	2010	648 143-150	A.R. Khataee, M. Zarei , S. Khameneh Asl
17	Biotreatment of a triphenylmethane dye solution using a Xanthophyta algae: modeling of key factors by neural network	Journal of the Taiwan Institute of Chemical Engineers (ISI)	2011	42 380-386	A.R. Khataee, M. Zarei , G. Dehghan, A. Ebadi, M. Pourhassan
18	Photocatalytic degradation of an anthraquinone dye on immobilized TiO ₂ nanoparticles in a rectangular reactor: destruction pathway and response surface approach	Desalination (ISI)	2011	268 126-133	A.R. Khataee, M. Zarei , M. Fathinia, M. Khobnasab Jafari

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19	Comparative photocatalytic degradation of two dyes on immobilized TiO ₂ nanoparticles: effect of dye molecular structure and response surface approach	Journal of Molecular Catalysis A: Chemical (ISI)	2010	333 73–84	M. Fathinia, A. R. Khataee, M. Zarei , S. Aber
20	Heterogeneous photocatalysis of a dye solution using supported TiO ₂ nanoparticles combined with homogeneous photoelectrochemical process: Molecular degradation products	Molecular Catalysis A: Chemical (ISI)	2011	338 84-91	A.R. Khataee, M. Zarei , R. Ordikhani-Seydlara
21	Photocatalysis of a dye solution using immobilized ZnO nanoparticles combined with photoelectrochemical process	Desalination (ISI)	2011	273 453-460	A.R. Khataee, M. Zarei
22	Effect of carbon nanotubes and activated carbon addition to the blends of monoethanolamine and triethanolamine on CO ₂ absorption at low partial pressures	International Journal of Energy and Environmental Engineering	2010	1 49-55	S. Aber, M. Zarei , A. Niaei, H. Joshani Koshky
23	Photoelectrocatalytic decolorization of diazo dye by a combination of zinc oxide nanophotocatalyst and carbon nanotube based cathode: determination of the degradation products	Desalination (ISI)	2011	278 117–125	A.R. Khataee, M. Zarei
24	Electrochemical generation of H ₂ O ₂ using immobilized carbon nanotubes on graphite electrode fed with air: investigation of operational parameters	Journal of Electroanalytical Chemistry (ISI)	2011	659 63-68	A.R. Khataee, M. Safarpour, M. Zarei , S. Aber
25	Decolorization of C.I. Basic Yellow 28 solution using supported ZnO nanoparticles coupled with photoelectro-Fenton process	Journal of Electroanalytical Chemistry (ISI)	2011	659 107-112	M. Iranifam, M. Zarei , A.R. Khataee
26	Chemometrics approach for determination and optimization of simultaneous photooxidative decolourization of a mixture of three textile dyes	Environmental Technology (ISI)	2012	33 2305–2317	A.R. Khataee, A. Naseri, M. Zarei , M. Safarpour, L. Moradkhannejhad
27	Photoelectro-Fenton/nanophotocatalysis decolorization of three textile dyes mixture: response surface modeling and multivariate calibration procedure for simultaneous determination	Journal of Electroanalytical Chemistry (ISI)	2012	672 53-62	A.R. Khataee, M. Safarpour, A. Naseri, M. Zarei
28	Phytoremediation potential of duckweed (Lemna minor L.) in degradation of C.I. Acid Blue 92: artificial neural network modeling	Ecotoxicology and Environmental Safety (ISI)	2012	80 291-298	A.R. Khataee, A. Movafeghi, S. Torbati, S.Y. Salehi Lisar, M. Zarei
29	Combined heterogeneous and homogeneous photodegradation of a dye using immobilized TiO ₂ nanophotocatalyst and modified graphite electrode with carbon nanotubes	Journal of Molecular Catalysis A: Chemical (ISI)	2012	363– 364 58– 68	A.R. Khataee, M. Safarpour, M. Zarei , S. Aber
30	Potential of the aquatic fern Azolla filiculoides in biodegradation of an azo dye: modeling of experimental results by artificial neural networks	International Journal of Phytoremediation (ISI)	2013	15 729–742	A.R. Khataee, A. Movafeghi, F. Vafaei, S.Y. Salehi Lisar, M. Zarei
31	Nitrogen doping of commercial TiO ₂ nanoparticles for enhanced photocatalytic degradation of dye under visible light: central composite design approach	Advanced Chemistry Letters	2013	1 24-31	A.R. Khataee, M. Zarei , L. Moradkhannejhad, S. Nourie, B. Vahid

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32	Bioremoval of C.I. Basic Red 46 as an azo dye from contaminated water by Lemna minor L.: Modeling of key factor by neural network	Environmental Progress & Sustainable Energy (ISI)	2013	32 (4) 1082-1089	A. Movafeghi, A. R. Khataee, S. Torbati, M. Zarei , S. Y. Salehi Lisar
33	Combination of nanophotocatalysis with electro-Fenton-like process in the removal of phenol from aqueous solution: GC analysis and response surface approach	International Journal of Industrial Chemistry	2012	3 27	M. Zarei , A. R. Khataee, M. Fathinai, F. Seyyednajafi, H. Ranjbar
34	Biological degradation of an azo textile dye using the green macroalga Enteromorpha sp.	Chemistry and Ecology (ISI)	2013	29 221-233	A.R. Khataee, G. Dehghan, M. Zarei , S. Fallah, G.R. Niaei, I. Atazadeh
35	Optimization of oxalate catalyzed photoelectro-Fenton process under visible light for removal of Reactive Red 195 using carbon paper cathode	Research on Chemical Intermediates (ISI)	2013	39 3355–3369	N. Djafarzadeh, M. Zarei , B. Behjati, A. R. Khataee
36	Bioremoval of an azo dye by Azolla filiculoides: Study of growth, photosynthetic pigments and antioxidant enzymes status	International Biodeterioration & Biodegradation (ISI)	2012	75 194-200	F. Vafaei, A.R. Khataee, A. Movafeghi, S.Y. Salehi Lisar, M. Zarei
37	Treatment of an azo dye by citrate catalyzed photoelectro-Fenton process under visible light using carbon nanotube-polytetrafluoroethylene cathode	Current Nanoscience (ISI)	2013	9 387-393	A. Khataee, H. Marandizadeh, M. Zarei , S. Aber, B. Vahid, Y. Hanifepour, S. W. Joo
38	Potential of Hydrocotyle vulgaris for phytoremediation of a textile dye: inducing antioxidant response in roots and leaves	Ecotoxicology and Environmental Safety (ISI)	2013	93 128-134	F. Vafaei, A. Movafeghi, A.R. Khataee, M. Zarei ; S. Y. Salehi Lisar
39	Combination of photocatalytic and photoelectro-Fenton/citrate processes for dye degradation using immobilized N-doped TiO ₂ nanoparticles and a cathode with carbon nanotubes: central composite design optimization	Chemical Engineering and Processing: Process Intensification (ISI)	2013	73 103– 110	A. Khataee, H. Marandizadeh, B. Vahid, M. Zarei , S. W. Joo
40	Modeling and optimization of photocatalytic/photoassisted-electro-Fenton like degradation of phenol using a neural network coupled with genetic algorithm	Journal of Industrial and Engineering Chemistry (ISI)	2014	20 1852–1860	A.R. Khataee, M. Fathinia, M. Zarei , B. Izadkhah, S. W. Joo
41	As(III) adsorption and antimicrobial properties of Cu-chitosan/alumina nanocomposite	Chemical Engineering Journal (ISI)	2015	273 610-621	S. Zavareh, M. Zarei , F. Darvishi, H. Azizi
42	Comparison of two methods for selegiline determination: a flow-injection chemiluminescence method using cadmium sulfide quantum dots and corona discharge ion mobility spectrometry	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (ISI)	2016	153 273-280	A.R. Khataee, R. Lotfi, A. Hasanzadeh, M. Iranifam, M. Zarei , S. W. Joo
43	Phosphomolybdic acid immobilized on graphite as an environmental photoelectrocatalyst	Chemosphere (ISI)	2016	161 422-428	S. Aber, Z. Yaghoubi, M. Zarei

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44	بازشناخت فناوری مصنوعات چرمی متعلق به دوره هخامنشی، مکشوفه از معدن نمک چهارآباد زنجان	پژوهه باستان سنجی (علمی - پژوهشی)	۱۳۹۴	سال اول، شماره دوم، ۲۶-۱۵	ح.ر. ایرانی، م. زارعی، ا. عالی، و. عسکریپور، ع.ر. کوچکزایی
45	Removal of acid red 88 from wastewater by adsorption on agrobased waste material, A case study of Iranian golden Sesamum indicum hull	Environmental Health Engineering and Management Journal (ISC)	2017	4 195-201	M. Zarei, S. Pezhhanfar, A. Ahmadi Someh
46	Mitoxantrone removal by electrochemical method: A comparison of homogenous and heterogenous catalytic reactions	Environmental Health Engineering and Management Journal (ISC)	2017	4 185-193	A. Jafarizad, M. Rostamizadeh, M. Zarei, S. Gharibian
47	Photo-assisted electrochemical abatement of trifluralin using a cathode containing a C60-carbon nanotubes composite	Chemosphere (ISI)	2018	199 510-523	A. Hasanzadeh, A.R. Khataee, M. Zarei, S. W. Joo
48	Synthesis of magnetic 3D grapheme detected with CaCO ₃ for anionic azo dye removal from aqueous solution: kinetic and RSM modeling approach	Chemical Engineering Research and Design (ISI)	2018	136 795-805	N. Arsalani, R. Nasiri, M. Zarei
49	Removal of Direct Blue 129 from Aqueous Medium Using Surfactant-Modified Zeolite: A Neural Network Modeling	Environmental Health Engineering and Management Journal (ISC)	2018	5(2) 101-113	M. Zarei, N. Djafarzadeh, L. Khadir
50	استفاده از گیاهان آگروپایرون (L. cristatum) و تال فسکیو (Agropyron arundinacea L.) تلقیح شده با Festuca). کنسرسیوم باکتریایی و قارچ بالائی شبه میکوریز در گیاه خاکهای آلوده نفتی	دانش کشاورزی و تولید پایدار (ISC)	1398	29 (2) 285-300	مهناز افشارنیا، محمدرضا ساریخانی، محمود زارعی
51	جداسازی باکتریهای تجزیه کننده نفت از خاکهای آلوده نفتی پالایشگاه و پتروشیمی تبریز و شناسایی باکتریهای کارآمد	دانش آب و خاک (ISC)	1401	32 (4) 63-106	مهناز افشارنیا، محمدرضا ساریخانی، محمود زارعی
52	بررسی کارایی شبکه عصبی مصنوعی در مدل سازی فرایند حذف مالاشیت سبز با استفاده از پسماند چای و بررسی ایزوترم	مجله آب و فاضلاب (ISC)	1398	30 (6) 51-62	محمود زارعی؛ سائینا فضلی؛ نرجس نجاری؛ سخاء پژهان فر؛ ابوالفضل احمدی صومعه
53	Bioremediation of textile dye Direct Blue 129, by green alga Chlorella vulgaris Beijerinck and cyanobacter Spirulina (Arthrospira) platensis Gomont, and influence of dye on their physiological and biochemical indices	Journal of Plant (ISC) Biological Sciences	2019	11 (4) 83-106	Zahra Moradi, Maryam Madadkar Haghjou, Mahmoud Zarei
54	Removal of nalidixic acid from aqueous solutions using a cathode containing three-dimensional graphene	Journal of Water Process Engineering (ISI)	2019	32 100978	Mahmoud Zarei, Farzaneh Beheshti Nahand, Alireza Khataee, Aliyeh Hasanzadeh
55	Two-electron oxygen reduction on fullerene C60-carbon nanotubes covalent hybrid as a metal-free electrocatalyst	Scientific reports (ISI)	2019	9 13780	Aliyeh Hasanzadeh, Alireza Khataee, Mahmoud Zarei, Yifeng Zhang
56	Removal of Phenazopyridine from wastewater by merging biological and electrochemical methods via Azolla filiculoides and electro-Fenton process	Journal of environmental management (ISI)	2020	254 109802	AM Gholizadeh, M Zarei, M Ebratkhan, A Hasanzadeh, F Vafaei

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57	Simultaneous elimination of diethyl phthalate, butylated hydroxy toluene and butylated hydroxy anisole from aqueous medium by an adsorption process on pretreated waste material; investigation of isotherms and neural network modeling	Journal of the Iranian Chemical Society (ISI)	2020	17 1377-1386	MA Farajzadeh, S Pezhhanfar, M Zarei , A Mohebbi
58	Comparison of NiCo ₂ O ₄ , CoNiAl-LDH, and CoNiAl-LDH@ NiCo ₂ O ₄ performances as ORR catalysts in MFC cathode	Renewable Energy (ISI)	2020	154 1263-1271	RT Khajeh, S Aber, M Zarei
59	Neural network, isotherm and kinetic study for wastewater treatment using Populus alba's pruned material	Iranian Journal of Chemistry and Chemical Engineering (IJCCE) (ISI)	2020	In press	Mahmoud Zarei , Sakha Pezhhanfar, Tohid Shekaari teymourloue, Mahdi Khalilzadeh
60	Eu-doped ZnO nanoparticles: Sonochemical synthesis, characterization, and sonocatalytic application	Ultrasonics Sonochemistry (ISI)	2020	67 (102822)	A.R. Khataee, A. Karimi, M. Zarei , S. W. Joo
61	Electrochemical advanced oxidation process of Phenazopyridine drug waste using different Ti-based IrO ₂ -Ta ₂ O ₅ anodes	Journal of the Taiwan Institute of Chemical Engineers (ISI)	2020	117 103-111	T. Babaei, M. Zarei , M.G. Hosseini, M.M. Hosseini
62	Neural network, isotherm and kinetic study for wastewater treatment using Populus alba's pruned material	Iranian journal of chemistry and chemical engineering (ISI)	2020	In press	Mahmoud Zarei, Sakha Pezhhanfar, Tohid Shekaari teymourloue, Mahdi Khalilzadeh
63	Phenazopyridine degradation by electro-Fenton process with magnetite nanoparticles-activated carbon cathode, artificial neural networks modeling	Journal of Environmental Chemical Engineering (ISI)	2021	9 (1) 104999	A.M. Gholizadeh, M. Zarei , M. Ebratkhahan, A. Hasanazadeh
64	Synthesis and study of functionalized magnetic graphene oxide for Pb ²⁺ removal from wastewater	Environmental Technology & Innovation (ISI)	2021	22 101384	M. Zarenezhad, M. Zarei , M. Ebratkhahan, M. Hosseinzadeh
65	Preparation of Fe@ Fe ₂ O ₃ /3D graphene composite cathode for electrochemical removal of sulfasalazine	Chemosphere (ISI)	2021	273 128581	S. Amali, M. Zarei , M. Ebratkhahan, A. Khataee
66	Introducing an effective iron-based catalyst for heterogeneous electro-Fenton removal of Gemcitabine using three-dimensional graphene as cathode	Journal of Industrial and Engineering Chemistry (ISI)	2021	96 (25) 254-268	M. Hajiahmadi, M. Zarei , A. Khataee
67	Synergy of production of value-added bioplastic, astaxanthin and phycobilin co-products and Direct Green 6 textile dye remediation in Spirulina platensis	Chemosphere (ISI)	2021	280 130920	Zahra Moradi, Maryam Madadkar Haghjou, Mahmoud Zarei , Louise Colville, Ali Raza
68	Removal of Neutral Red Dye via Electro-Fenton Process: A Response Surface Methodology Modeling	Electrocatalysis (ISI)	2021	12 579-594	Masoud Ebratkhahan, Samin Naghash Hamed, Mahmoud Zarei , Abbas Jafarizad, Mohammad Rostamizadeh
69	Efficient Pb (II) removal from wastewater by TEG coated Fe ₃ O ₄ ferrofluid	Journal of water and environmental nanotechnology (ISC)	2021	6 (2) 109-120	Sajjad Lotfi, Bagher Aslibeiki, Mahmoud Zarei
70	Synthesis of different morphologies of metal and metal oxide nanoparticles and investigation of their catalytic properties by optical methods	Journal of Molecular Structure (ISI)	2021	1244 130943	Mahnaz Alizadeh, Mahmoud Zarei , Masoud Ebratkhahan, Mohammad Amjadi

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71	Facile synthesis of iron (II) doped carbonaceous aerogel as a three-dimensional cathode and its excellent performance in electro-Fenton degradation of ceftazidime from water solution	Separation and Purification Technology (ISI)	2021	278 119559	Abolfazl Ahmadi, Mahmoud Zarei , Aydin Hassani, Masoud Ebratkhahan, Ali Olad
72	Fennel (<i>Foeniculum vulgare</i> Mill) Plants Responses to Salicylic Acid Foliar Application as Chemical Priming Agent under Salt Stress	Biology Bulletin (ISI)	2021	48 (3) S45-S53	S. Adalatzaadeh-Aghdam, M. Toorchi, M. Zarei
73	Investigating Removal Efficiency of Tetracycline Antibiotic from Aqueous Solutions Using Nanoclay Adsorbent and Study of Effective Parameters, Kinetic Models, and Adsorption	Environment and Water Engineering (ISC)	2022	8 (4) 810-824	P. Mechinch, H. Aghdasinia, S.J. Peighambaroust, M. Zarei
74	Introduction of maize cob and husk for wastewater treatment; evaluation of isotherms and artificial neural network modeling	journal of the iranian chemical society (ISI)	2022	19 231-246	Sakha Pezhhanfar, Mahmoud Zarei , Tohid Shekari teymourloue
75	An effective natural mineral-catalyzed heterogeneous electro-Fenton method for degradation of an antineoplastic drug: modeling by a neural network	Chemosphere (ISI)	2022	291 132810	M. Hajiahmadi, M. Zarei , A. Khataee
76	Fennel (<i>Foeniculum vulgare</i> Mill) genotypes responses to salicylic acid foliar application as chemical priming agent under salt stress	Journal of Iranian Plant Ecophysiological Research (ISC)	2022	17 (67)	S. Adalatzaadeh-Aghdam, M. Toorchi, M. Zarei
77	Synthesis and characterization of magnetic Fe ₃ O ₄ @SiO ₂ -MIL-53(Fe) metal-organic framework and its application for efficient removal of arsenate from surface and groundwater	Journal of Environmental Chemical Engineering (ISI)	2022	10 (2) 107144	Bahman Abdollahi, Darioush Salari, Mahmoud Zarei
78	Electrochemical removal of fluoxetine via three mixed metal oxide anodes and carbonaceous cathodes from contaminated water	Environmental Research (ISI)	2022	207 112641	R. Norouzi, M. Zarei , A. Khataee, M. Ebratkhahan, P. Rostamzadeh
79	Efficient electrochemical removal of 5-fluorouracil pharmaceutical from wastewater by mixed metal oxides via anodic oxidation process	Chemosphere (ISI)	2022	296 134007	M. Ebratkhahan, M. Zarei , T. Babaei, MG. Hosseini, M. M. Hosseini, Z. Fathipour
80	Synthesis, characterization, and application of diethylenetriamine functionalized MIL-53 (Fe) metal-organic framework for efficient As (V) removal from surface and groundwater	Journal of Solid State Chemistry (ISI)	2022	311 123132	B. Abdollahi, M. Zarei, D. Salari
81	Synthesis and optimization of biodegradable porous superabsorbent hydrogels based on gelatin-methacrylic acid and its application for phenazopyridine removal from pharmaceutical waste	Journal of Polymer Research (ISI)	2022	29 (8) 1-11	SA. Fard, MS. Amini-Fazl, M. Zarei
82	Facile synthesis and preparation of graphite/chitosan/graphene quantum dots nanocomposite cathode for electrochemical removal of tetracycline from aqueous solution	Separation and Purification Technology (ISI)	2022	299 121663	M. Ebratkhahan, M. Zarei , N. Arsalani
83	One-pot synthesis of graphene hydrogel/M (M: Cu, Co, Ni) nanocomposites as cathodes for electrochemical removal of rifampicin from polluted water	Environmental Research (ISI)	2022	214 113789	M. Ebratkhahan, M. Zarei , IZ. Akpinar, Ö. Metin
84	Electrophoretic deposited nanofilm via one-pot, in-situ process with enhanced sonophotocatalytic performance	Journal of Alloys and Compounds (ISI)	2022	925, 166651	M. Darbandi, E. Narimani, SR. Seyyedi, M. Zarei

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85	One-pot synthesis of novel 3D graphene/Fe ₃ O ₄ /agro-based waste material (Sesamum indicum) nanocomposite for wastewater treatment and artificial neural network modeling	Chemical Engineering Research and Design (ISI)	2023	190, 451-463	Ramin Nasiri, Mahmoud Zarei , Nasser Arsalani, Sakha Pezhhanfar, Abolfazl Ahmadi Someh, Yasaman Panahian
86	Oleaster seed-derived activated carbon/ferrite nanocomposite for Pb ²⁺ removal from wastewater	Materials Chemistry and Physics (ISI)	2023	300, 127536	Mahsa Mahmoodi, Bagher Aslibeiki, Mahdieh Abdolalipour Sakha, Mahmoud Zarei
87	Application of Ti-based mixed metal oxide electrodes towards electrochemical mineralization of Metronidazole: Evaluation of influencing factors and removal by-products	Journal of the Taiwan Institute of Chemical Engineers (ISI)	2023	149, 104940	Mahmoud Zarei , Tala Babaei, Masoud Ebratkhan, Taher Nasiri Khoshnevis, Mahdi Zoghmand, Alireza Gheshlaghi, Mir Ghasem Hosseini
88	Carbonaceous CoCr LDH nanocomposite as a light-responsive sonocatalyst for treatment of a plasticizer-containing water	Ultrasonics Sonochemistry (ISI)	2023	98, 106485	Samin Sadeghi Rad, Alireza Khataee, Samira Arefi-Oskoui, Tannaz Sadeghi Rad, Mahmoud Zarei , Yasin Orooji, Erhan Gengec, Mehmet Kobya
89	Removal and mineralization of prednisolone from water by using homogeneous and heterogeneous electro-Fenton processes	Journal of Environmental Chemical Engineering (ISI)	2023	11, 110465	Sina Mohammadi, Mahmoud Zarei , Mohammad Sadegh Amini-Fazl, Masoud Ebratkhan
90	Enhanced visible-light-driven photocatalysis via magnetic nanocomposites: A comparative study of g-C ₃ N ₄ , g-C ₃ N ₄ /Fe ₃ O ₄ , and g-C ₃ N ₄ /Fe ₃ O ₄ /ZnO	Materials Today Communications (ISI)	2023	37 107340	Sahar Ziaalmolki, Bagher Aslibeiki, Mahmoud Zarei , Reza Torkamani, Tapati Sarkar
91	NiO:Cu ⁺² mesoporous nanoparticles with enhanced oxidative sonophotocatalytic performance for visible-light driven organic pollutants remediation	Journal of Photochemistry and Photobiology A: Chemistry (ISI)	2024	447 115283	Elham Sajjadi, Masih Darbandi, Mahmoud Zarei
92	Synthesis of functionalized magnetic graphene oxide by iminodiacetic acid to removal Chromium from contaminated waters	Journal of Water and Wastewater (ISC)	2024	34 (5) 27-43	Mahmoud Zarei , Salar Maleki, Mehdi Hosseinzadeh
93	In-situ synthesis of bimetallic Co/Zn-ZIF on the graphite-felt for electrocatalytic degradation of pharmaceutical pollutants	Journal of Environmental Chemical Engineering (ISI)	2024	12 113336	Abdollah Jamal Sisi, Alireza Khataee, Mahmoud Zarei
94	Fe-doped ZnO nanoparticles prepared by high energy ball milling with enhanced sonophotocatalytic performance	Advanced Powder Technology (ISI)	2024	35 104550	Mahmoud Zarei , Najimeh Jesarati, Ehsan Narimani, Masih Darbandi, Reza Torkamani, Bagher Aslibeiki
95	Mixed metal oxide (Ru, Ir, Sn) electrodes in the anodic activation of peroxydisulfate for a sustainable degradation of rifampicin	Journal of Industrial and Engineering Chemistry (ISI)	2024	138 575-585	Zahra Movaffagh, Alireza Khataee, Abdollah Jamal Sisi, Zohreh Jalali, Mahmoud Zarei , Mehmet Kob

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96	Harnessing Chlorella vulgaris for the phycoremediation of azo dye: A comprehensive analysis of metabolic responses and antioxidant system	Algal Research (ISI)	2024	82 103660	Zahra Moradi, Maryam Madadkar Haghjou, Mahmoud Zarei , Hamidreza Sharifan
97	Endogenously doped mixed-oxide CoO/Co ₂ O ₃ in ZIF-derived carbon deposited on graphite felt for electrochemical oxidation of pharmaceuticals	Electrochimica Acta (ISI)	2024	507 145069	Abdollah Jamal Sisi, Alireza Khataee, Mahmoud Zarei
98	Toward combined photo-electrochemical system for degradation of ceftriaxone contaminated water over Ti-based mixed metal oxide photoanodes performance evaluation and mechanism insights	Journal of the Taiwan Institute of Chemical Engineers (ISI)	2024	165 105787	Mahmoud Zarei , Ali Ranjbar, Behnaz Hazrati Dorig, Tala Babaei, Paria Rostamzadeh, Alireza Gheslaghi, Mir Ghasem Hosseini
99	Investigating Glycine and Hexamethylenediamine Functionalized Magnetic Graphene Oxide for Removing Pb ²⁺ from Aqueous Solutions	Iranian Journal of Chemistry and Chemical Engineering (IJCCE)	2024	43 (9) 3237-3255	Mahmoud Zarei , Paria Rostamzadeh, Elham Asgari, Mehdi Hosseinzadeh
100	Electrophoretic-deposited Fe-doped TiO ₂ nanofilm via a one-pot, in-situ process with enhanced sonophotocatalytic performance in amoxicillin antibiotic removal	Ceramics International (ISI)	2024	51 (2) 2143-2154	Ehsan Narimani, Mahmoud Zarei , Masih Darbandi
101	Enhanced sonophotocatalytic degradation of phenazopyridine using mesoporous nickel oxide nanoparticles synthesized by a solvothermal method in deep eutectic solvent	Journal of Molecular Liquids (ISI)	2024	417 126664	At-har Najafi, Masih Darbandi, Mahmoud Zarei
102	Environmental and energy analysis of chromium recovery from residual tanned leather using alkaline thermal hydrolysis	Scientific Reports (ISI)	2025	15 11202	Shima Shafiei Ahmadi, Mohammadali Maysami, Reza Abdi, Mahmoud Zarei , Stefan Dröge
103	Poly (Styrene-Co-Maleic Anhydride)-Based Materials via Chemical Modification for Removal of Heavy Metal Ions from Aqueous Solution: A Review	Journal of Chemical Reviews (ISC)	2025	7 (3) 358-380	Mehdi Hosseinzadeh, Mahmoud Zarei , Paria Rosatamzadeh
104	Enhancing production efficiency: Preparation, optimization, and characterization of polyvinyl alcohol/chitosan antibacterial hydrogels	International Journal of Biological Macromolecules (ISI)	2025	316 (1) 144472	Paria Rostamzadeh, Mahmoud Zarei , Mohammad Sadegh Aminifazl, Fahimeh Farshi Azhar, Katayoon Nofouzi
105	Synthesis, Characterization and Electrophoretic Deposition of Fe-doped TiO ₂ Nanoparticles and Investigation of Its Application in the Methylene Blue Degradation	Applied Chemistry Today (ISC)	2025	1404 34-41	Ehsan Narimani, Mahmoud Zarei , Masih Darbandi

Research Activities:

Title of Project	Place of Work	Dates	
		From	To

Research Interests:

No	Research Interest
1	Water and wastewater treatment
2	Environmental Protection and Remediation
3	Gas Absorption * Absorption of Carbon Dioxide into Aqueous Solutions of Alkanolamines * Modeling of Gas Absorption Processes Using Artificial Neural Networks (ANN)
4	Electrochemical Processes of water treatment *Electro-Fenton process *Peroxi-coagulation process *Modeling of Electrochemical Processes Using Artificial Neural Networks (ANN) *Optimization of Electrochemical Processes Using Response Surface Design Methodology (RSM)

Papers Presented at National and International Scientific Assemblies:

No	Title	Title and Place of Assembly	Date	Authors
1	جذب کربن دی اکسید به: ۱- محلولهای آبی N, N - دی متیل اتانول آمین. ۲- مخلوطهای آبی مونو و دی اتانول آمین و N, N - دی متیل اتانول آمین.	ششمین کنگره ملی مهندسی شیمی ایران، دانشگاه صنعتی اصفهان	اردیبهشت ۱۳۸۰	ن. دانشور، د. سالاری، ح. زمزمی، م. زارعی
2	Application of artificial neural networks for modeling of the absorption of carbon dioxide into aqueous blends of Mono and Diethanolamine with N, N-dimethylethanolamine	The 5th International Chemical Engineering Congress and Exhibition, Kish Island	2 - 5 January 2008	N. Daneshvar, M. Zarei
3	مطالعه فرآیند جذب کربن دی اکسید توسط مخلوط مونواتانول آمین و تری اتانول آمین در حضور نانولوله های کربنی	دومین کنفرانس ملی روز جهانی محیط زیست، دانشگاه تهران	۲۰ و ۲۱ خرداد ۱۳۸۷	س. عابر، ح. جوشنی کشکی، م. زارعی
4	The efficiency comparison of carbon nanotube and activated carbon added to the blend of alkanolamines in CO ₂ absorption process	دوازدهمین کنگره ملی مهندسی شیمی ایران، دانشگاه صنعتی سهند	۲۹ مهر تا ۲ آبان ۱۳۸۷	S. Aber, A. Niaei, H. Joshani Koshky, M. Zarei
5	Study of carbon dioxide absorption process by mixtures of monoethanolamine (MEA) and triethanolamine (TEA) in the presence of carbon nanotubes (CNT)	2nd International Congress on Nanoscience and Nanotechnology, University of Tabriz	28-30 October 2008	S. Aber, H. Joshani Koshky, M. Zarei

No	Title	Title and Place of Assembly	Date	Authors
6	Optimization of C.I. Basic Yellow 2 removals by peroxi-coagulation process using carbon nanotube-PTFE cathode with response surface methodology	The 6th International Chemical Engineering Congress and Exhibition (ICChEC 2009), Kish Island	16 - 20 November 2009	M. Zarei , D. Salari, A. Niaei, A.R. Khataee
7	استفاده از الکتروود کاتد نانولوله‌های کربنی برای تصفیه الکتروشیمیایی ماده رنگزای زرد بازی ۲ با روش پراکسی کوآگولاسیون	ششمین همایش دانشجویی فناوری نانو، دانشگاه علوم پزشکی و خدمات بهداشتی درمانی شهید بهشتی	۲۵ تا ۲۷ آذر ۱۳۸۸	محمود زارعی، داریوش سالاری، علیقلی نیائی، علیرضا ختائی
8	Electrochemical Destruction of C.I. Basic Yellow 2 for Wastewater Treatment Using a Carbon nanotube – PTFE O ₂ -Fed Cathode	the 3rd Conference on Nanostructures (NS ₂₀₁₀), Kish Island	10-12, March 2010	M. Zarei , D. Salari, A. Niaei, A. Khataee
9	Application of response surface methodology for optimization of photocatalytic treatment of a dye solution using immobilized TiO ₂ nanoparticles combined with photoelectron-Fenton process	6 th EFCATS summer school, Izmir, Turkey	13-19, September 2010	S. Khameneh Asl, M. Zarei , A.R. Khataee
10	Preparation of nitrogen doped commercial TiO ₂ nanoparticles: investigation of photocatalytic efficiency for treatment of contaminated water with organic dyes	Regional Chemistry Congress, Islamic Azad University Miyaneh Branch	March 3, 2011	A.R. Khataee, M. Zarei , S. Nourie, L. Moradkhannejhad
11	Immobilization of carbon nanotubes on graphite electrode for electrochemical generation of H ₂ O ₂	15 th Iranian Chemistry Congress (ICC 2011), Bu-Ali Sina University, Hamadan	4-5, September 2011	A.R. Khataee, M. Safarpour, M. Zarei , S. Aber
12	Using central composite design to optimize the degradation of Acid Yellow 36 by Photoelectro-Fenton combined with photocatalytic process	15 th Iranian Chemistry Congress (ICC 2011), Bu-Ali Sina University, Hamadan	4-5, September 2011	A.R. Khataee, M. Safarpour, M. Zarei , S. Aber
13	Removal of mixture of three textile dyes from aqueous solution by photoelectrocatalytic process and their simultaneous determination using multivariate calibration methods	3 rd Iranian Biennial Seminar of Chemometrics, University of Tabriz	9-10 November 2011	A.R. Khataee a, M. Safarpour, A. Naseri, M. Zarei , S. Aber
14	Application of carbon nanotube-PTFE cathode for electrochemical treatment of a reactive dye solution in a flow plant	4th International Conference on Nanostructures (ICNS4), Kish Island	12-14 March, 2012	A.R. Khataee, B. Vahid, B. Behjati, M. Safarpour, M. Zarei
15	تهیه نانوذرات دی اکسید تیتانیم دوپه شده با نیتروژن و بررسی کارایی آن جهت حذف مواد رنگزای آلی با ساختارهای شیمیایی مختلف تحت تابش نور مرئی	دوازدهمین همایش دانشجویی فناوری نانو، انجمن علمی نانوفناوری پزشکی ایران، دانشگاه علوم پزشکی تهران	۳ و ۴ خرداد ۱۳۹۱	علیرضا ختائی، لیلا مرادخان نژاد، سیروس نوری، محمود زارعی
16	جذب سطحی کاتیونهای Cu^{2+} ، Pb^{2+} ، Mn^{2+} ، Cd^{2+} از محلولهای آبی با استفاده از ژئولیت NaA بعنوان جاذب	همایش ملی جریان و آلودگی آب، دانشگاه تهران	۳ خرداد ۱۳۹۱	محمود زارعی، بهرام کیوانی، افسانه آزادی اسکونی

No	Title	Title and Place of Assembly	Date	Authors
17	Potential of <i>Hydrocotyle vulgaris</i> in biodegradation of monoazo dye solution	هفدهمین کنفرانس سراسری و پنجمین کنفرانس بین المللی زیست شناسی ایران، دانشگاه شهید باهنر کرمان	۱۶-۱۷ شهریور ۱۳۹۱	F. Vafaei, A. Movafeghi, A. R. Khataee, M. Zarei
18	استفاده از ژئولیت فعالسازی شده برای حذف مواد رنگزای آلی راکتیو از آبهای آلوده به آن	اولین کنفرانس ملی علوم و مهندسی محیط زیست و توسعه پایدار	۱۶-۱۷ بهمن ۱۳۹۲	ام گلثوم زاهدی، محمود زارعی، نادر جعفرزاده
19	حذف ماده رنگزای آنیونی آبی مستقیم ۱۲۹ از محلول های آبی به وسیله ژئولیت اصلاح شده با سورفکتانت کاتیونی	اولین کنفرانس ملی علوم و مهندسی محیط زیست و توسعه پایدار	۱۶-۱۷ بهمن ۱۳۹۲	لیلا خدیر، محمود زارعی، نادر جعفرزاده
20	Removal of dye solution containing Reactive Red 195 using graphene oxide nanostructures synthesized from Graphite powder	10 th Nanoscience and Nanotechnology Conference, Istanbul, Turkey	17-21 June, 2014	Mahmoud Zarei , Nader Djafarzadeh, Mahdi Kazemzadeh
21	Synthesis of Gold Nanoparticles by Wet Chemical Reduction Method and investigating of the reducing agent and pH effect on the particle size of nanoparticles	10 th Nanoscience and Nanotechnology Conference, Istanbul, Turkey	17-21 June, 2014	Abbas Jafarizad, Dugu Ekinici, Mahmoud Zarei
22	Green synthesis of goldnanoparticles from Hypericum perforatum extract and characterization and physiological stability	The 22nd Iranian Seminar of Organic Chemistry University of Tabriz, Iran	19-21 August, 2014	A. Jafarizad, D. Ekinici, M. Zarei
23	Investigation of the ability of organic dye acid blue 92 biodegradation from contaminated water by Halophila Ovalis	1 st Iranian Applied Chemistry Seminar (IIACS), University of Tabriz, Iran	22-23 August, 2016	M. Zarei , Sakha Pezhhanfar, Amir Mohammad Gholizadeh
24	Quantitative determination of natamycin in dough by Ion Mobility Spectrometry	1 st Iranian Applied Chemistry Seminar (IIACS), University of Tabriz, Iran	22-23 August, 2016	M. Zarei , F. Ghanbari, A. Kanani, A. Hasanzadeh, E. Farimand
25	Application of SEM-EDX to microstructural analysis of historic organic and mineral remains	The Irano-German International Symposium on Archaeometry, Tabriz Islamic Art University, Iran	1-4 November, 2016	M. Zarei
26	Effect of arbuscular mycorrhizal fungi on lead translocation and accumulation in tomato plant	7th Seminar of Chemistry and Environment		
27	Phytoremediation potential of aquatic plant, Nasturium Officinale, in degradation of organic dye, Malachite green	2nd. International conference on Researches in Science & Engineering	3-4 February, 2017	M. Zarei , S. Pezhhanfar, A. Zende Del
28	Bioremoval of a triphenylmethane dye, Malachite Green, from contaminated water by duckweed Azolla filiculoides	3rd International conference on sustainable development, strategies and challenges With a focus on Agriculture, Natural Resources, Environment and Tourism	7-9 march, 2017	M. Zarei , S. Pezhhanfar, A. M. Gholizadeh

No	Title	Title and Place of Assembly	Date	Authors
29	Decolourization of Crystal violet from contaminated waters with utilize natural methods via lentic plant (Lemna minor)	3rd International conference on sustainable development, strategies and challenges With a focus on Agriculture, Natural Resources, Environment and Tourism	7-9 march, 2017	M. Zarei , A. M. Gholizadeh, S. Pezhhanfar
30	Biosorption of hazardous dye Crystal violet from wastewater by using Chlorophytum Comosum as an inexpensive plant	4th International conference on environmental planning and management, poster presentation	16-17 May, 2017	M. Zarei , S. Pezhhanfar, A. Ahmadi Someh
31	Removal of methylene blue from contaminated water via green method by using lentic plant (Lemna Gibba)	The 6th International Conference of Chemistry, Chemical, and Polymer Engineering	4 September, 2017	A. M. Gholizadeh, M. Zarei , F. Beheshti Nahand
32	سنتر نانوذرات مغناطیسی Fe_3O_4 و بررسی اثر پوشش پلیمری بر روی حذف فلز سرب از فاضلاب	کنفرانس فیزیک ایران	۷-۴ شهریور ۱۳۹۸	سجاد لطفی، باقر اصل بیکی، محمود زارعی
33	جذب سطحی رنگ قرمز اسیدی ۸۸ از محیط آبی توسط پسماند دانه کنجد طلایی ایرانی	دومین سمینار شیمی کاربردی ایران	۵ شهریور ۱۳۹۶	محمود زارعی ، ابوالفضل احمدی صومعه، سخا پڑهان فر
34	جداسازی باکتریهای نفتخوار از خاکهای آلوده پالایشگاه و پتروشیمی تبریز و ارزیابی کارایی تجزیه نفتی آنها	پانزدهمین کنگره علوم خاک ایران	۶ شهریور ۱۳۹۶	مهناز افشارنیا، محمدرضا ساریخانی، محمود زارعی ، علی لطف الهی
35	سنتر گرافن سه بعدی و استفاده از آن بعنوان الکتروکاتد جهت حذف	سومین سمینار شیمی کاربردی ایران	۶ شهریور ۱۳۹۷	محمود زارعی ، فرزانه بهشتی نهند، علیرضا ختانی
36	Evaluation of the adsorption kinetics of the antibiotic ciprofloxacin by nano-clay	The National Conference on Treatment of Water, Air and Soil (TWAS2018)	۱۲ تیرماه ۱۳۹۷	P. Meshinchi, H. Aghdassinia, S. J. Peighambardoust, M. Zarei
37	حذف یون نیترات از آب از طریق روش الکتروشیمیایی با استفاده از الکترودهای آلومینیوم و آهن	سومین سمینار شیمی کاربردی ایران	۶ شهریور ۱۳۹۷	مسعود عبرت خواهان، محمود زارعی
38	حذف آلاینده دارویی فنازوپیریدین از آبهای آلوده با استفاده از الکتروکاتد DSA و کاتد پلاتین	چهارمین سمینار شیمی کاربردی ایران	۱ مرداد ۱۳۹۸	محمود زارعی ، میر قاسم حسینی، طلا بابایی
39	Removal of Pb(II) ions from aqueous solution using aminated magnetic graphene oxide nanoparticles	The 25th Iranian Seminar of Analytical Chemistry	27 August 2018	Maryam Zarenezhad, Mahmoud Zarei , Mehdi Hosseinzadeh
40	Synthesis of different morphologies of silver nanoparticles and studying of their catalytically properties by optical methods	The 25th Iranian Seminar of Analytical Chemistry	27 August 2018	Mahnaz Alizadeh, Mahmoud Zarei , Javad Hassanzadeh
41	Investigation of the elimination of Acid Red 74 from wastewater by the rounded cones of Cupressus arizonica	The 25th Iranian Seminar of Analytical Chemistry	27 August 2018	Mahmoud Zarei , Sahra Khosroshahiyan, Sakha Pezhhanfar, Abolfazl Ahmadi someh, Zuhair Bolourchian
42	Investigation of Fe-Fe ₂ O ₃ three dimensional graphene composite as cathode electrode for the electrochemical removal of organic compounds from contaminated water	The 25th Iranian Seminar of Analytical Chemistry	27 August 2018	Somayeh Amali, Mahmoud Zarei , Alireza Khataee

No	Title	Title and Place of Assembly	Date	Authors
43	بررسی ویژگی های ساختاری نانوذرات فریت آهن و ترمودینامیک جذب یون های سرب از پساب	کنفرانس فیزیک ایران	۴-۱ شهریور ۱۳۹۹	سجاد لطفی، باقر اصل بیکی، محمود زارعی
44	داربست های اسفنجی بر پایه پلی ساکراید با مواد فعال به عنوان سیلانت در هموراژ خارجی	پنجمین سمینار شیمی کاربردی ایران	۹-۱۱ شهریور ۱۴۰۰	پریا رستم زاده، محمد صادق امینی فضل، محمود زارعی، فاطمه وفایی
45	تهیه نانوکامپوزیت مغناطیسی با پوشش کربنی جهت حذف سرب از آبهای آلوده	چهارمین کنگره ملی شیمی و نانوشیمی از پژوهش تا فناوری	۳۱ شهریور ۱۴۰۰	مهديه عبدالعلی پورسرخا، باقر اصل بیکی، محمود زارعی
46	Removal of fluoxetine with anodic oxidation process via Ti/RuO ₂ -IrO ₂ -SnO ₂ anode and carbon nanotube cathodes from aqueous	Second Eurasian Conference on Nanotechnology	17-18 December 2021	Ramin Norouzi, Mahmoud Zarei , Alireza Khataee, Masoud Ebratkhahan, Paria Rostamzadeh
47	Effective removal of 5-fluorouracil from wastewater by mixed metal oxides electrodes through anodic oxidation process	Second Eurasian Conference on Nanotechnology	17-18 December 2021	Masoud Ebratkhahan, Mahmoud Zarei , Tala Babaei, Mir Ghasem Hosseini, Mir Majid Hosseini, Zahra Fathipour
48	Evaluation of electro-Fenton removal of doxycycline from polluted water via carbon-cloth cathode	21st ICS International Chemistry Congress	26-28 July 2022	Masoud Ebratkhahan, Elaheh Azimi, Ramin Norouzi, Mahmoud Zarei
49	Removal of doxycycline from contaminated water through anodic oxidation process using Ti/RuO ₂ -IrO ₂ anode	21st ICS International Chemistry Congress	26-28 July 2022	Masoud Ebratkhahan, Alireza Gheslaghi, Ramin Norouzi, Mahmoud Zarei
50	بررسی میزان حذف یون های سرب و ایزوترم های جذب با استفاده از نانوکامپوزیت فریت آهن-کربن فعال	ششمین کنفرانس شیمی کاربردی ایران	۶ شهریور ۱۴۰۱	مهسا محمودی، باقر اصل بیکی، مهديه عبدالعلی پورسرخا، محمود زارعی
51	سنتر و بررسی ویژگی های ساختاری و نوری و اثر فوتوکاتالیستی نانوکامپوزیت g-C ₃ N ₄ -Fe ₃ O ₄ و نمونه g-C ₃ N ₄	پنجمین کنگره ملی شیمی و نانوشیمی از پژوهش تا فناوری	۲۵ آبان ۱۴۰۱	سحر ضیاء الملکی، باقر اصل بیکی، محمود زارعی
52	سنتر و بررسی ویژگی های ساختاری و نوری نمونه g-C ₃ N ₄ و نانوکامپوزیت g-C ₃ N ₄ Fe ₃ O ₄	شانزدهمین کنفرانس ماده چگال انجمن فیزیک ایران	۵ بهمن ۱۴۰۱	سحر ضیاء الملکی، باقر اصل بیکی، محمود زارعی
53	Co ₃ O ₄ @C deposition on graphite fibers as the cathode in the electrochemical degradation of rifampicin	11st International Seminar on Chemistry and Environment (ISCE2024)	27-29 August 2024	Abdollah Jamal Sisi, Alireza Khataee, Mahmoud Zarei
54	Mixed-metal Co/Zn-ZIF-derived cathode for degradation of rifampin through electro-Fenton process	11st International Seminar on Chemistry and Environment (ISCE2024)	27-29 August 2024	Abdollah Jamal Sisi, Alireza Khataee, Mahmoud Zarei
55	Fabrication of Carbon inverse opal electrode modified by Fe@Fe ₂ O ₃ nanoparticles for methylene blue degradation via electro-Fenton process	11st International Seminar on Chemistry and Environment (ISCE2024)	27-29 August 2024	Sanaz Ahmadian, Mahmoud Zarei , Ali Reza Amani Ghadim
56	Effect of magnetization of the industrial activated carbon for adsorption of real arsenic- polluted aqueous solution	11st International Seminar on Chemistry and Environment (ISCE2024)	27-29 August 2024	Paria Rostamzadeh, Mahmoud Zarei , Hannaneh Mortaghi Ghasemi, Tala Babaei
57	سنتر، شناسایی و لایه نشانی الکتروفوریتیکی نانوذرات تیتانیوم دی اکسید دوپه شده با آهن و بررسی کاربرد آن در تخریب متیلن بلو	7th IACC Iranian Applied Chemistry Conference	۲۷ شهریور ۱۴۰۳	احسان نریمانی، محمود زارعی، مسیح دربندی
58	بررسی عملکرد گرافن اکسید سه بعدی اصلاح شده با آهن به عنوان کاتد در حذف آنتی بیوتیک سفتریاکسون از آب های آلوده به آن	7th IACC Iranian Applied Chemistry Conference	۲۷ شهریور ۱۴۰۳	حنانه مرتقی قاسمی، محمود زارعی، طلا بابایی

No	Title	Title and Place of Assembly	Date	Authors
59	Preparation and performance evaluation of Chitosan-Thiourea cathode on the titanium mesh substrate in the Electro-Fenton process for removal of ofloxacin from water	22nd Iranian Chemistry Congress (ICC22)	13-15 May 2024	Hannaneh Mortaghi Ghasemi, Mahmoud Zarei
60	Citric acid as an environment-friendly crosslinker solvent for preparation of Chitosan- Polyvinyl alcohol blend for tissue engineering application	16th International Seminar on Polymer Science and Technology (ISPST 2024)	7 September 2024	Paria Rostamzadeh, Mahmoud Zarei , Mohammad Sadegh Aminifazl
61	Life Cycle Assessment for Chrome Recycling and Fertilizer production from Tannery Waste	The 16th National Congress on Mechanics of Biosystems Engineering and Agricultural Mechanization	11-13 Mehr 1403	Shima Shafiei Ahmadi, Mohammadali Maysami, Reza Abdi, Mahmoud Zarei
62	Environmental analysis of chromium-containing tanned leather residue using alkaline thermal hydrolysis	سومین کنفرانس ملی مدیریت سبز پسماند	20-21 Azar 1402	شیما شفیعی احمدی، محمدعلی میسسی، رضا عبدی، محمود زارعی

Granted patents in Iran

NO	Title of patent	Place of Assembly	Date
1	ساخت الکتروود کاتد نانولوله های کربنی برای استفاده از آن در تصفیه آب Fabrication of cathodic electrode with carbon nanotubes for water treatment application	ایران Iran	۱۳۸۸/۱۰/۱۵ 2010
2	فرآیند فتوالکترودفنتون با نور مرئی کاتالیز شده با اگزالات برای حذف آلاینده های رنگزا از آب Oxalate catalyzed photoelectro-Fenton process using visible light for removal of dyes from water	ایران Iran	۱۳۸۸/۱۱/۱۰ 2010

Awards, Honorary Degrees, Medals and Positions:

Title of Award, Medal, Position	Issuing Authority	Country	Year
Top student in M.Sc Course	Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz	Iran	1999
Top student in Ph.D Entrance exam in 2005	Department of Applied Chemistry, Faculty of Chemistry, University of Tabriz	Iran	2005
One of the Top Ph.D students of University of Tabriz	Exceptional Talents, University of Tabriz	Iran	2005-2009
مقاله برتر پوستری کنفرانس	دومین کنفرانس ملی روز جهانی محیط زیست، دانشگاه تهران	ایران	۱۳۸۷

مقاله برتر کنفرانس	ششمین همایش دانشجویی فناوری نانو، دانشگاه علوم پزشکی و خدمات بهداشتی درمانی شهید بهشتی	ایران	۱۳۸۸
Top cited article 2008 to 2009	Journal of Electroanalytical Chemistry (Elsevier)	Elsevier	2009
Hot paper	Journal of Electroanalytical Chemistry (Elsevier)	Elsevier	2012
Hot paper	Journal of Hazardous Material (ISI)	Elsevier	2012
Top Cited Paper for 2010 and 2011	Desalination (ISI)	Elsevier	2013

Membership to Scientific Associations:

Name of Institution/Association	Position Held	Country	Year

Reviewer for Journals:

- 1- Journal of Hazardous Material, *Elsevier*
- 2- CLEAN - Soil, Air, Water, *Wiley-VCH*
- 3- Environmental Technology, *Taylor & Francis*
- 4- Journal of Environmental Management, *Elsevier*
- 5- Desalination, *Elsevier*
- 6- Journal of Chemical Technology & Biotechnology, *Wiley-VCH*
- 7- The Korean Journal of Chemical Engineering, *Springer*
- 8- Bioresource Technology, *Elsevier*
- 9- Industrial & Engineering Chemistry Research, *ACS Publications*
- 10- Water Research, *Elsevier*
- 11- Fresenius Environmental Bulletin (FEB), *Parlar Scientific Publications*
- 12- Desalination and Water Treatment (DWT), *Desalination Publications*
- 13- Asia-Pacific Journal of Chemical Engineering, *Wiley-VCH*
- 14- Environmental Progress & Sustainable Energy, *Wiley-VCH*
- 15- Journal of Industrial Chemistry, *Springer*
- 16- BioNanoScience, *Springer*
- 17- Chemical Engineering and Processing, *Elsevier*
- 18- Chemistry central journal,
- 19- Chemical Engineering Journal, *Elsevier*

Language Proficiency:

Language	Degree of Proficiency											
	Writing				Reading				Speaking			
	Native	Good	Fair	Poor	Native	Good	Fair	Poor	Native	Good	Fair	Poor
Farsi	*				*				*			
Turkish	*				*				*			
English		*				*				*		