

**Gholamreza Moussavi, Ph.D****Professor**

Department of Environmental Health Engineering

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- **Published articles:** 197 (**Scopus:** 27-February-2026)
- **h-index:** 57
- **Citations:** 10,380 total citations

PERSONAL INFORMATIONName and surname: **Gholamreza Moussavi**

Date of birth: 22 May 1975

EDUCATIONAL BACKGROUND

Degree	Major	Department	Year
Researcher	Chemical Engineering	Chemical & Biochemical Engineering, University of British Columbia, Canada	2005
Ph.D	Environmental Health Engineering	Environmental Health Engineering, Tehran University of Medical Science	2001-2005
M.Sc	Environmental Health Engineering	Environmental Health Engineering, Tehran University of Medical Science	1999-2001
B.Sc	Environmental Health	Environmental Health Engineering, Beheshti University of Medical Science	1996-1999

INTERNATIONAL COLLABORATION

- Universidad Politécnica de Madrid, **Spain**
- Group of Advanced Oxidation Processes, EPFL, **Switzerland**.
- Lappeenranta University of Technology, **Finland**.
- Universidad de Córdoba, **Spain**.
- University of Valencia, **Spain**.
- University of British Columbia, **Canada**.

SCIENTIFIC AND ACADEMIC ACCOUNTS

- Researcher ID: O-8699-2017
- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=21934761400>
- ORCID: <http://orcid.org/0000-0003-4708-4507>
- Publons: <https://publons.com/researcher/1267055>
- Mendeley: <https://www.mendeley.com/profiles/gholamreza-moussavi/>

TEACHING EXPERIENCES

I have taught many courses to Ph.D. and M.Sc. students in the Environmental Engineering program.

2006-present **Professor**, Dept. of Environmental Health Engineering, Tarbiat Modares University

- Advanced water treatment systems: Principles and Design (PhD students)
- Advanced wastewater treatment systems: Principles and Design (Ph.D students)
- Wastewater sludge treatment (Ph.D students)
- Wastewater sludge processing (Ph.D students)
- Advanced air pollution control systems (Ph.D students)
- Hazardous waste management (Ph.D students)
- Water treatment plant design (M.Sc. students)
- Wastewater treatment plant design (M.Sc. students)
- Industrial wastewater treatment, (M.Sc. students)
- Air pollution control (M.Sc., students)

2002-2005 Lecturer, Department of Environmental Health Engineering, Azad University

- Wastewater Treatment (B.Sc. class of 52 students)
- Water Treatment, (B.Sc. class of 48 students)

2004 Instructor, Workshop on the impact of the untreated wastewater discharge, Tehran

2003-2004 Lecturer, Department of Environmental Health Engineering, Tehran University of Medical University

- Wastewater Treatment, (B.Sc. class of 32 students)

RESEARCH EXPERIENCES

- 2005-present Department of Environmental Health Engineering, Tarbiat Modares University, Tehran, Iran
- Advanced oxidation processes for air, water, and wastewater treatment
 - Advanced biological processes for soil, air, water, and wastewater treatment
 - Nanotechnology for the degradation of environmental contaminants
 - Catalytic ozonation for removal of micropollutants from liquid and gas streams
 - Biofiltration and biotrickling filtration of VOCs and odorants
 - Ozonation of excess activated sludge
 - Saline wastewater Treatment
- 2005 Department of Chemical and Biological Engineering, University of British Columbia, Vancouver, Canada
- Innovated and Investigated a novel photobioreactor (UV-Biofiltration) for the Biodegradation of recalcitrant air pollutants
- 2001-2005 Department of Environmental Health Engineering, Tehran University of Medical Sciences
- Designed and investigated a novel bioreactor (UA/AFB) for complete treatment of municipal wastewater treatment
 - Investigated performance of UA/AFB reactor for industrial wastewater treatment
 - Evaluated performance of an Ultraviolet Germicidal Irradiation reactor for indoor air disinfection
 - Developed and set up the H₂S sampling and measurement method from waste air streams
 - Designed and evaluated a novel bioscrubber for H₂S removal from waste in the air stream
 - Investigated use of H₂O₂ as an oxidant for H₂S removal from waste air emission in a chemical scrubber
 - Conducted a comparative study on collection and treatment alternatives for part 22 of Tehran city
 - Studied the performance of UV photoreactor for disinfecting effluent air from a bioscrubber treating H₂S gas stream
 - Performed field work on optimization of an activated sludge process
 - Studied the effect of lime on sewage sludge stabilization

- Provided scientific consulting to various companies on water and wastewater treatment plant design
- Provided scientific consulting to M.Sc. students in environmental engineering on their thesis
- Conducted lab work on combined advanced oxidation and biological processes for pollution control
- Organized field visits to various wastewater treatment plants for B.Sc. students in environmental engineering

1999-2001 Department of Environmental Health Engineering, Tehran University of Medical Sciences

- Investigated the effects of the Lyophilization process on kinetic coefficients of the activated sludge process
- Evaluated the effects of the Lyophilization process on the characteristics and microbial quality of the activated sludge process
- Extracted and studied the chitosan as a coagulant in water treatment

1998 Performed field sampling from waste streams

PATENTS

- Innovated the UV-Photobiofiltration for treatment of waste air containing recalcitrant pollutants (*patent No. 33334, Iran*)
- Up-flow Anaerobic/Aerobic Fixed Bed (UA/AFB) combined reactor for municipal and industrial wastewater treatment (*patent No. 33333, Iran*)

ANALYTICAL SKILLS

- Gas chromatograph/Mass spectrophotometry (GC-MS)
- Spectrophotometer
- TOC and BDOC analyzer
- High-performance liquid chromatography (HPLC)
- Fourier transform infrared (FT-IR) spectrometer
- Air, water, and wastewater microbial examination
- Air, water, and wastewater sampling and physicochemical analysis

COMPUTER SKILLS

- Microsoft Windows and office,

- Extensive experience with Excel and Origin (graphing, programming, and statistical data analysis)
- SPSS (statistical data analysis)

SPORT SKILLS

- Kyokushin Karate, Dan III.
- Official Referee, IKF.

PROFESSIONAL TRAINING COURSES / WORKSHOPS

- Teaching Methods Training Workshop, 2004
- Research Methods Training Workshop, 2003
- Laboratory Safety Course, 2002
- Technology Tour, Water and wastewater treatment plants, Petrochemical industry, Composting Plant, and 5 research centers, Iran, 2002
- Analytical instruments training course, 2001

HONOURS AND AWARDS

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|-----------|---|
| 2021 | <i>26th Razi International Award, Distinguished Researcher</i> |
| 2021 | <i>2% of highly cited researchers.</i> |
| 2020 | <i>IRAN Scientific Leader (35/100), ISEF.</i> |
| 2018-2023 | <i>1% of highly cited researchers.</i> |
| 2012-2020 | <i>University Outstanding Researcher</i> |
| 2019 | <i>Distinguished Researcher in Research</i> , among all researchers in IRAN held by the Iran Ministry of Sciences and Technology. |
| 2015 | <i>Distinguished Researcher in Research</i> , among all researchers in IRAN held by the Iran Association of Environmental Health (IAEH) and received the award and an appreciation letter from the Head of IAEH. |
| 2014 | <i>Distinguished Researcher in Environmental Biotechnology</i> , among all researchers in IRAN held by the Iran Association of Biotechnology |

- 2013 **Razi International Award, *Distinguished Researcher in Research & Technology***, among all researchers in IRAN held by the Ministry of Health and received the award and an appreciation letter from the President of Iran.
- 2005 **Razi International Award *Distinguished Researcher in Research & Technology***, among all researchers in IRAN held by the Ministry of Health and received the award and an appreciation letter from the President of Iran
- 2003 ***The Honored First-Class Ph.D. Candidate*** among all Ph.D. students in IRAN based on Excellence in education and research received the award and an appreciation letter from the President of Iran
- 2002 ***Outstand Graduate Student*** award in education, Tehran University of Medical Sciences
- 2001 ***First Rank in Ph.D. Entrance Exam*** among all applicants throughout the country
- 1999 ***First Rank in M.Sc. Entrance Exam*** among all applicants throughout the country

MEMBERSHIPS

- ***Editorial Board Member***, Research Journal of Applied Sciences, Asian Network for Scientific Information
- Member of Iranian Association of Environmental Health (IAEH), IRAN
Member of Environmental Engineering Scientists, IRAN

REVIEWER FOR PEER-REVIEWED JOURNALS

1. *Applied Catalysis B: Environmental*
2. *Bioresource Technology*
3. *Water Research*
4. *Environmental Science and Technology*
5. *Environmental Progress & Sustainable Energy*
6. *Environmental Science: Nano*
7. *Chemosphere*
8. *Journal of Hazardous Materials*
9. *Chemical Engineering Journal*
10. *Biochemical Engineering Science*
11. *Desalination*
12. *Environmental Engineering and Management Journal*
13. *Process Biochemistry*
14. *Environmental Technology*
15. *Clean air, soil and water*
16. *Iranian Journal of Environmental Health Science & Engineering*
17. *Iranian Journal of Biotechnology*

18. *Iranian Journal of Chemistry and Chemical Engineering*
19. *Iranian Journal of Chemical Engineering*
20. *African Journal of Environmental Science and Technology*
21. *Journal of Environmental Chemistry and Ecotoxicology*
22. *International Journal of Industrial Chemistry*
23. *International Journal of Environmental Science and Technology*
24. *Journal of Environmental Management*
25. *Mesoporous and Microporous Materials*
26. *Journal of the Iranian Chemical Society*
27. *Desalination and Water Treatment*
28. *Ecotoxicology and Environmental Safety*
29. *Environmental Engineering and Management Journal*
30. *Arabian Journal of Chemistry*
31. *Journal of Environmental Chemical Engineering*
32. *Journal of Toxicology and Environmental Health Sciences*
33. *Bioprocess and Biosystems Engineering*
34. *World Applied Sciences Journal*
35. *Applied Surface Science*
36. *Asia-Pacific Journal of Chemical Engineering*
37. *Materials Research Bulletin*
38. *Environmental Science and Pollution Research*
39. *Water, Air, & Soil Pollution*
40. *Separation Science and Technology*
41. *Environmental Processes*
42. *Advances in Physical Chemistry*
43. *RSC Advances*
44. *International Journal of Global Environmental Issue*
45. *Journal of Chemical Technology & Biotechnology*
46. *Water Science and Technology*
47. *Science Asia*
48. *Ozone: Science & Engineering*
49. *Archives of Environmental Protection*
50. *Research on Chemical Intermediates*
51. *Waste and Biomass Valorization*
52. *Environmental Science: Processes & Impacts*
53. *Water Science and Engineering*
54. *Chemical Engineering Communications*
55. *Water Resource and Industry*
56. *The Korean Journal of Chemical Engineering*
57. *International Journal of Chemical Reactor Engineering*
58. *Songklanarin Journal of Science and Technology*
59. *Environmental Health Engineering and Management Journal*
60. *Journal of Advanced Research*
61. *Chinese Journal of Chemical Engineering*
62. *Critical Reviews in Biotechnology*
63. *Journal of Fluorine Chemistry*
64. *Environmental Processes*
65. *Resource-Efficient Technologies*
66. *Chemical Engineering & Technology*
67. *Journal of Materials and Design*
68. *Caspian Journal of Environmental Sciences*
69. *Biochimie*

- 70. *Journal of Material Cycles and Waste Management*
- 71. *The Canadian Journal of Chemical Engineering*
- 72. *Journal of Chemistry*
- 73. *3Biotech*
- 74. *AIMS Environmental Science*

SPORT ACTIVITIES

- Black Belt-Dan 3 in Karate
- Referee, Iranian Sport Organization
- Member of the International Karate Organization (IKO)

PERSONAL INTERESTS

- Karate, Volleyball, Horse Riding,
- Traveling and Touristy

THESIS SUPERVISED

- **PostDoc Researchers**
 - **completed: 8**
 - **active: 2**
- **Ph.D Dissertations**
 - **defended: 25**
 - **active: 5**
- **MSc. Theses:**
 - **defended: 26**
 - **active: 4**

Active PhD Students:

Somayeh Akhbari, co-supervision with Universidad Politécnica de Madrid, Spain (Dr. Stefanos Giannakis)

Samira Mohammadi, co-supervision with Universidad Politécnica de Madrid, Spain (Dr. Stefanos Giannakis)

PUBLICATIONS AND PRESENTATIONS

BOOKS (Persian):

- 1) Moussavi G., Wastewater Examination for Using in Agriculture, Kermanshah University Publisher, 2002.
- 2) Moussavi G., Wastewater Treatment, Khaniran publisher, 2003
- 3) Moussavi G., Air Pollution and its Control, Khaniran publisher, 2003.
- 4) Moussavi G., Water Engineering, Khaniran publisher, 2003.
- 5) Moussavi G., Wastewater Engineering, Khaniran publisher, 2003.
- 6) Moussavi G., Environmental Microbiology, Khaniran publisher, 2003.
- 7) Moussavi G., Environmental Chemistry, Khaniran publisher, 2003.
- 8) Moussavi G., Fluid Mechanic and Hydraulic, Khaniran publisher, 2003.
- 9) Moussavi G., Fundamentals of Environmental Health, Shahrab publisher, 2005.
- 10) Moussavi G., Water Works Engineering, Hafiz publisher, (2007).
- 11) Moussavi G., Wastewater Sludge Processing, Hafiz publisher, 2009.
- 12) Moussavi G., Wastewater Collection Systems, Hafiz publisher, 2009.
- 13) Moussavi G., Wastewater Treatment in Wetlands, Shahrab publisher, 2009.

Peer-Reviewed Papers (2007 – 2024):**2024**

1. S. Ostovar, **G. Moussavi**, ..., S. Giannakis, Uncovering the mesoporous secrets of Ti/ γ -Al₂O₃ 3-D gels: Fine-tuning morphology engineering for enhancing catalytic ozonation efficacy of environmental contaminants, *Separation and Purification Technology*, 335, 5 May 2024, 126118.
2. **G. Moussavi**, Bakhtiarynasab, Sakineh Shekoohiyan, S. Mohammadi, S. Giannakis, M. Li, High potential of the vacuum UV-activated peracetic acid (VUV/PAA) process in eliminating recalcitrant contaminants and waterborne pathogens: Assessing the efficacy of annular and helical reactor configurations, *Journal of Water Process Engineering*, 335, 60, April 2024, 105143.
3. S. Ostovar, **G. Moussavi**, ..., S. Giannakis, Rapid degradation of Omeprazole and highly effective inactivation of *E. coli* in the UVA-light photocatalytic process with Cu-doped in spinel-structured γ -Al₂O₃ as a stable catalyst, *Chemical Engineering Journal*, 479, 1 January 2024, 147536.

2023

4. H. Amanollahi, **G. Moussavi**, ..., S. Giannakis, From waste to wealth: Using MgO nanoparticles to transform ammonium into a valuable resource, *Journal of Water Process Engineering*, 26 September 2023.
5. H. Mohebbi, **G. Moussavi**, S. Giannakis, Development of a magnetic Ce-Zr bimetallic MOF as an efficient catalytic ozonation mediator: Preparation, characterization, and catalytic activity, *Separation and Purification Technology*, 22 March 2023, Volume 315, 123670.
6. S. Ostovar, **G. Moussavi**, S. Mohammadi, ..S. Giannakis, Developing a novel Ti-doped Al₂O₃ xerogel with high photocatalytic chemical and microbial removal performance: Characterization and mechanistic insights, *Chemical Engineering Journal*, 21 March 2023, Volume 464, 142545.

7. M.M. Ghorbaninejad Fard Shirazi H. Mohebal, **G. Moussavi**, M. Karimi, S. Giannakis, Development of a magnetic Ce-Zr bimetallic MOF as an efficient catalytic ozonation mediator: Preparation, characterization, and catalytic activity, ***Separation and Purification Technology***, 2023.
8. S. Shekoohiyan, **G. Moussavi**, M. Heidari, Microplastics and mesoplastics as emerging contaminants in Tehran landfill soils: The distribution and induced-ecological risk, ***Environmental Pollution***, Volume 324, 1 May 2023, 121368.
9. F. Fanaei, **G. Moussavi**, S. Shekoohiyan, Enhanced bioremediation of oil-contaminated soil in a slurry bioreactor by H₂O₂-stimulation of oil-degrading/biosurfactant-generating bacteria: performance optimization and bacterial metagenomics, ***Biodegradation***, 2023, 34(1), pp. 83–101, Volume 51, 2023, 103371.
10. M. Ansari, **G. Moussavi**, M.H. Ehrampoosh, S. Giannakis, A systematic review of non-thermal plasma (NTP) technologies for synthetic organic pollutants (SOPs) removal from water: Recent advances in energy yield aspects as their key limiting factor, ***Journal of Water Process Engineering***, Volume 51, 2023, 103371.

2022

11. M. Kohantorabi, **G. Moussavi**, P. Oulego, S. Giannakis, Deriving an α -Fe₂O₃/g-C₃N₄ nanocomposite from a naturally hematite-rich soil, for dual photocatalytic and photo-Fenton degradation of Acetaminophen under visible light, ***Separation and Purification Technology***, Volume 299, 15 October 2022, 121723.
12. S. Akbari, **G. Moussavi**, J. Decker, M.L. Marin, F. Bosca, S. Giannakis, Superior visible light-mediated catalytic activity of a novel N-doped, Fe₃O₄-incorporating MgO nanosheet in presence of PMS: Imidacloprid degradation and implications on simultaneous bacterial inactivation, ***Applied Catalysis B: Environmental***, Volume 317, 15 November 2022, 121732.
13. S. Mohammadi, **G. Moussavi**, K. Kiyanmehr, S. Shekoohiyan, M. Heidari, Kazem Naddafi, S. Giannakis, Degradation of the antiviral remdesivir by a novel, continuous-flow, helical-baffle incorporating VUV/UVC photoreactor: Performance assessment and enhancement by inorganic peroxides, ***Separation and Purification Technology***, Volume 298, 1 October 2022, 121665.

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14. N. López-Vinent, A. Cruz-Alcalde, G. Moussavi, I.C. Gonzalez, A.H. Lehmann, J. Giménez, S. Giannakis, Improving ferrate disinfection and decontamination performance at neutral pH by activating peroxymonosulfate under solar light, *Chemical Engineering Journal*, Volume 450, Part 1, 15 December 2022, 137904.
 15. K. Kiyanmehr, G. Moussavi, S. Mohammadi, K. Naddafi, S. Giannakis, The efficacy of the VUV/O₃ process run in a continuous-flow fluidized bed reactor for simultaneous elimination of favipiravir and bacteria in aqueous matrices, *Chemosphere*, Volume 304, 2022, 135307.
 16. N. Abdollahi, G. Moussavi, S. Giannakis, A review of heavy metals' removal from aqueous matrices by Metal-Organic Frameworks (MOFs): State-of-the art and recent advances, *Journal of Environmental Chemical Engineering*, Volume 10, Issue 3, June 2022, 107394.
 17. H. Mohebbi, G. Moussavi, M. Karimi, S. Giannakis, Catalytic ozonation of Acetaminophen with a magnetic, Cerium-based Metal-Organic framework as a novel, easily-separable nanocomposite, *Chemical Engineering Journal*, Volume 434, 15 April 2022, 134614.
 18. S. Mohammadi, G. Moussavi, M. Rezaei, Enhanced peroxidase-mediated biodegradation of polyethylene using the bacterial consortia under H₂O₂-biostimulation, *Polymer*, Volume 240, 1 February 2022, 124508.
 19. A. Mahmoudnia, N. Mehrdadi, M. Baghdadi, G. Moussavi, Change in global PFAS cycling as a response of permafrost degradation to climate change, *Journal of Hazardous Materials Advances*, Volume 5, February 2022, 100039.
 20. S. Mohammadi, G. Moussavi, K. Yaghmaei, S. Giannakis, Development of a percarbonate-enhanced Vacuum UV process for simultaneous fluoroquinolone antibiotics removal and fecal bacteria inactivation under a continuous flow mode of operation, *Chemical Engineering Journal*, Volume 431, March 2022, 134064.
 21. M. Kohantorabi, G. Moussavi, P. Oulego, S. Giannakis, Heterogeneous catalytic ozonation and peroxone-mediated removal of Acetaminophen using natural and modified hematite-rich soil as an efficient environmental catalyst, *Applied Catalysis B: Environmental*, Volume 301, 2022, 120786.

22. S. Mohammadi, G. Moussavi, S. Giannakis, Vacuum UV pre-treatment coupled with self-generated peroxide stimulation of biomass: An innovative hybrid system for detoxification and mineralization of toxic compounds, *Chemosphere*, Volume 286, 2022, 131701.
23. Saeed Molaei, Gholamreza Moussavi, Nasser Talebbeydokhti, Sakine Shekoohiyan, Biodegradation of the petroleum hydrocarbons using an anoxic packed-bed biofilm reactor with in-situ biosurfactant-producing bacteria, *Journal of Hazardous Materials*, Volume 421, 2022, 126699.

2021

24. M. Kohantorabi, G. Moussavi, S. Mohammadi, P. Oulego, S. Giannakis, Synthesis of a novel, ternary AgI/CeO₂@g-C₃N₄ nanocomposite with exceptional stability and reusability for visible light-assisted photocatalytic reduction of hexavalent chromium, *Applied Surface Science*, Volume 555, 2021, 149692.
25. M. Kohantorabi, G. Moussavi, P. Oulego, S. Giannakis, Radical-based degradation of sulfamethoxazole via UVA/PMS-assisted photocatalysis, driven by magnetically separable Fe₃O₄@CeO₂@BiOI nanospheres, *Separation and Purification Technology*, Volume 267, 2021, 118665.
26. M. Kohantorabi, G. Moussavi, S. Mohammadi, P. Oulego, S. Giannakis, Photocatalytic activation of peroxymonosulfate (PMS) by novel mesoporous Ag/ZnO@NiFe₂O₄ nanorods, inducing radical-mediated acetaminophen degradation under UVA irradiation, *Chemosphere* Volume 277, 2021, 130271.
27. M. Kohantorabi, S. Giannakis, G. Moussavi, M. Bensimon, M. Gholami, C. Pulgarin, An innovative, highly stable Ag/ZIF-67@GO nanocomposite with exceptional peroxymonosulfate (PMS) activation efficacy, for the destruction of chemical and microbiological contaminants under visible light, *Journal of Hazardous Materials*, Volume 413, 2021, 125308.
28. H. Amanollahi, G. Moussavi, S. Giannakis, Enhanced Vacuum UV-based process (VUV/H₂O₂/PMS) for the effective removal of ammonia from water: Engineering configuration and mechanistic considerations, *Journal of Hazardous Materials*, Volume 402, 2021, 123789.

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29. M. Kohantorabi, G. Moussavi, S. Giannakis, A review of the innovations in metal- and carbon-based catalysts explored for heterogeneous peroxymonosulfate (PMS) activation, with focus on radical vs. non-radical degradation pathways of organic contaminants, *Chemical Engineering Journal*, Volume 411, 2021, 127957.
30. S. Akbari, G. Moussavi, S. Giannakis, Efficient photocatalytic degradation of ciprofloxacin under UVA-LED, using S,N-doped MgO nanoparticles: Synthesis, parametrization and mechanistic interpretation, *Journal of Molecular Liquids*, Volume 324, 2021, 114831.
31. Z. Amiri, G. Moussavi, S. Mohammadi, S. Giannakis, Development of a VUV-UVC/peroxymonosulfate, continuous-flow Advanced Oxidation Process for surface water disinfection and Natural Organic Matter elimination: Application and mechanistic aspects. *Journal of Hazardous Materials*, Volume 402, 2021, 123789.
32. S. Mohammadi, G. Moussavi, S. Giannakis, S. Shekoohiyan, M. Luisa Marín, F. Boscá, A continuous-flow catalytic process with natural hematite-alginate beads for effective water decontamination and disinfection: Peroxymonosulfate activation leading to dominant sulfate radical and minor non-radical pathways, *Chemical Engineering Journal*, Volume 411, 2021, 127738.
33. E. Aseman-Bashiz, A. Rezaee, G. Moussavi, Ciprofloxacin removal from aqueous solutions using modified electrochemical Fenton processes with iron green catalysts, *Journal of Molecular Liquids*, Volume 324, 2021, 114694.

2020

34. F. Fanaei, G. Moussavi, S. Shekoohiyan, Enhanced treatment of the oil-contaminated soil using biosurfactant-assisted washing operation combined with H₂O₂-stimulated biotreatment of the effluent, *Journal of Environmental Management*, 2 July 2020, Volume 271, 110941.
35. S. Karimian, G. Moussavi, F. Fanaei, S. Mohammadi, S. Shekoohiyan, S. Giannakis, Shedding light on the catalytic synergies between Fe(II) and PMS in vacuum UV (VUV/Fe/PMS) photoreactors for accelerated elimination of pharmaceuticals: The case of metformin, *Chemical Engineering Journal*, Volume 40015 November 2020Article 125896.

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36. M. Moradi, , G. Moussavi, K. Yaghmaeian, A. Yazdanbakhsh, M. Sillanpää, Synthesis of novel Ag-doped S-MgO nanosphere as an efficient UVA/LED-activated photocatalyst for non-radical oxidation of diclofenac: Catalyst preparation and characterization and photocatalytic mechanistic evaluation, ***Applied Catalysis B: Environmental***, Volume 260, January 2020, Article 118128.
37. M. Rezaei, G. Moussavi, K. Naddafi, M.S. Johnson, Enhanced biodegradation of styrene vapors in the biotrickling filter inoculated with biosurfactant-generating bacteria under H₂O₂ stimulation, ***Science of The Total Environment***, Volume 704, 20 February 2020, Article 135325.
38. S. Shekoohiyan, A. Rahmania, M. Chamack, G. Moussavi, S. Giannakis, A novel CuO/Fe₂O₃/ZnO composite for visible-light assisted photocatalytic oxidation of Bisphenol A: Kinetics, degradation pathways, and toxicity elimination, ***Separation and Purification Technology***, Volume 242, 1 July 2020, Article 116821.
39. H.M. Nejad, G. Moussavi, Advanced biodegradation process of atrazine in the peroxidase-mediated sequencing batch reactor (SBR) and moving-bed SBR (MSBR): mineralization and detoxification, *Journal of Environmental Health Science and Engineering*, 2020, 18(2), pp. 433–439.
40. R., Rostami, G., Moussavi, A.J., Jafari, S. Darbari, A modeling concept on removal of VOCs in wire-tube non-thermal plasma, considering electrical and structural factors, 2020, ***Environmental Monitoring and Assessment***.
41. A.H. Cheshme Khavar, G. Moussavi, K. Yaghmaeian, et al., A new Ru(II) polypyridyl complex as an efficient photosensitizer for enhancing the visible-lightdriven photocatalytic activity of a TiO₂/reduced graphene oxide nanocomposite for the degradation of atrazine: DFT and mechanism insights, ***RSC Advances***, 2020, 10, 22500.

2019

42. H. Amanollahi, G. Moussavi, S. Giannakis, VUV/Fe(II)/H₂O₂ as a novel integrated process for advanced oxidation of methyl tert-butyl ether (MTBE) in water at neutral pH: Process intensification and mechanistic aspects, ***Water Research***, Volume 166, 1 December 2019, Article 115061.

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43. A.H. Cheshme Khavar, G. Moussavi, A.R. Mahjoub, R. Luque, M. Sattari, Enhanced visible light photocatalytic degradation of acetaminophen with Ag₂S-ZnO@rGO core-shell microsphere as a novel catalyst: Catalyst preparation and characterization and mechanistic catalytic experiments, ***Separation and Purification Technology***, Volume 229, 15 December 2019, Article 115803.
44. F. Fanaei, G. Moussavi, V. Srivastava, M. Sillanpää, The enhanced catalytic potential of sulfur-doped MgO (S-MgO) nanoparticles in activation of peroxysulfates for advanced oxidation of acetaminophen, ***Chemical Engineering Journal***, Volume 371, 1 September 2019, Pages 404-413.
45. F. Abbaszadeh Haddad, G. Moussavi, M. Moradi, Advanced oxidation of formaldehyde in aqueous solution using the chemical-less UVC/VUV process: Kinetics and mechanism evaluation, ***Journal of Water Process Engineering***, Volume 27, February 2019, Pages 120-125.
46. S. Shekoohiyan, S. Rtimi, G. Moussavi, S. Giannakis, C. Pulgarin, Enhancing solar disinfection of water in PET bottles by optimized in-situ formation of iron oxide films. From heterogeneous to homogeneous action modes with H₂O₂ vs. O₂ – Part 2: Direct use of (natural) iron oxides, ***Chemical Engineering Journal***, Volume 360, 15 March 2019, Pages 1051-1062.
47. S. Shekoohiyan, S. Rtimi, G. Moussavi, S. Giannakis, C. Pulgarin, Enhancing solar disinfection of water in PET bottles by optimized in-situ formation of iron oxide films. From heterogeneous to homogeneous action modes with H₂O₂ vs. O₂ – Part 1: Iron salts as oxide precursors, ***Chemical Engineering Journal***, Volume 358, 15 February 2019, Pages 211-224.
48. G. Moussavi, E. Fathi, M. Moradi, Advanced disinfecting and post-treating the biologically treated hospital wastewater in the UVC/H₂O₂ and VUV/H₂O₂ processes: performance comparison and detoxification, ***Process Safety and Environmental Protection***, 126C (2019) pp. 259-268.
49. M. Moradi, G. Moussavi, Enhanced treatment of tannery wastewater using the electrocoagulation process combined with UVC/VUV photoreactor: Parametric and mechanistic evaluation, ***Chemical Engineering Journal***, Volume 358, 15 February 2019, Pages 1038-1046.

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50. G. Moussavi, F. Abbaszadeh Haddad, Bacterial peroxidase-mediated enhanced biodegradation and mineralization of bisphenol A in a batch bioreactor, *Chemosphere*, Volume 222, 15 May 2019, Pages 549-555.
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