Vahid Mahmoudi

Assistant professor in Chemical Engineering

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Field of interest

Separation processes, Environmental engineering and pollution control, Wastewater treatment, Nano Technology, Catalysis and photocatalysis, Adsorption processes, Carbon nanotubes (CNTs) and Graphene

Education

2004-2009	*Bachelor of Science Chemical Engineering, Ferdowsi University of Mashhad, Iran.*
2009-2012	*Master of Science Chemical Engineering, Ferdowsi University of Mashhad, Iran.*
2012-2018	*PhD Chemical Engineering, Ferdowsi University of Mashhad, Iran.*

Work Experiences

Daniz Pipe Co., Mashhad, Iran	*R&D Section*	*2008*
Gandom Dasht Co., Mashhad, Iran	*R&D Section*	*2011*
Bahjat Co., Gonabad, Iran	*Technical Assistant*	*2012*
UOG Industry Liaison Office Management	*Manager*	*2018*

Research Experiences

Title	***Details***
Deep oxidative desulfurization of fossil fuels by a green and recoverable catalyst	*Ferdowsi University of Mashhad, Iran.*

Publications

- Javadpour, S M, Dehghani M, Mahmoudi, V, Toghraie, D, Salahshour, S (2024). Optimization of nanofluid flow in a mini channel with semi porous fins using response surface methodology based on the Box–Behnken design, Journal of Thermal Analysis and Calorimetry, https://doi.org/10.1007/s10973-024-13616-4 .
- Entezari Khorasani, M, Darroudi, M, Rohani Bastami, T, Mahmoudi, V (2024). Sonochemical synthesis of graphene oxide-Ag_2O nanozyme as an oxidize-like mimic for the highly sensitive detection of lithium in blood serum, Ultrasonics Sonochemistry, 108 (2024) 106960.
- Eizi, R., Bastami, T. R., Mahmoudi, V., Ayati, A., & Babaei, H. (2023). Facile ultrasound-assisted synthesis of CuFe-Layered double hydroxides/g-C3N4 nanocomposite for alizarin red S sono-sorption. Journal of the Taiwan Institute of Chemical Engineers, 145, 104844.
- Mahmoudi V., Mojaverian Kermani A., Ghahramaninezhad M., Ahmadpour A, 2021. Oxidative desulfurization of dibenzothiophene by magnetically recoverable polyoxometalate-based nanocatalyst: Optimization by response surface methodology, Molecular Catalysis, 509, 111611.
- Mojaverian Kermani A., Mahmoodi V., Ghahramaninezhad M., Ahmadpour A, 2020. Highly efficient and green catalyst of $\{Mo_{132}\}$ nanoballs supported on ionic liquid-functionalized magnetic silica nanoparticles for oxidative desulfurization of dibenzothiophene. Separation and Purification Technology, 258(1), 117960.
- Mahmoodi, V., Ahmadpour, A., Bastami, T.R. and Mosavian, M.T.H., 2018. PVP assisted synthesis of high-efficient BiOI/Graphene oxide nanohybrid and its photocatalytic performance in degradation of organic dye pollutants. Solar Energy, 176, pp.483-495.
- Mahmoodi, V., Bastami, T.R. and Ahmadpour, A., 2018. Solar energy harvesting by magnetic-semiconductor nanoheterostructure in water treatment technology. Environmental Science and Pollution Research, 25(9), pp.8268-8285.
- Mahmoodi, V., Ahmadpour, A., Rohani Bastami, T. and Hamed Mousavian, M.T., 2018. Facile synthesis of BiOI nanoparticles at room temperature and evaluation of their photoactivity under sunlight irradiation. Photochemistry and photobiology, 94(1), pp.4-16.
- Mahmoodi, V. and Sargolzaei, J., 2014. Optimization of photocatalytic degradation of naphthalene using nano-TiO_2/UV system: statistical analysis by a response surface methodology. Desalination and Water Treatment, 52(34-36), pp.6664-6672.
- Mahmoodi, V. and Sargolzaei, J., 2014. Photocatalytic abatement of naphthalene catalyzed by nanosized TiO_2 particles: assessment of operational parameters. Theoretical Foundations of Chemical Engineering, 48(5), pp.656-666.
- T Rohani Bastami, V Mojaver, A Ahmadpour, V Mahmoudi, “Synthesis and Characterization of CuFe2O4 Magnetic Nanoparticles and Their Application for removal of Reactive Red 141 from Aqueous Solution”, Journal Of Metallurgical and Materials Engineering, 32(57-69), 2021.

Conferences Attended

- N. Binesh, V. Mahmoudi "Novel techniques of extracting bioactive substances from saffron", 6th National Conference on Saffron / 17 & 18 November 2021 / University of Gonabad.
- N. Binesh, V. Mahmoudi "Introducing novel techniques useful for determination of adulterants in valuable saffron", 6th National Conference on Saffron / 17 & 18 November 2021 / University of Gonabad.
- V. Mahmoodi, A. Ahmadpour, T. Rohani Bastami, and M. T. Hamed Mousavian, "Facile synthesis of BiOI/Reduced graphene oxide photocatalyst for degradation of organic dye pollutants", 7th International Conference on Nanostructures (ICNS7), Sharif University of Technology, Iran, 27 February-1 March 2018.
- V. Mahmoodi, N. Binesh, J. Sargolzaei "Effect of Process Parameters on Degradation of Naphthalene Using UV/Nano-TiO_2 in Batch Slurry System", 4th International Congress on Nanoscience & Nanotechnology, University of Kashan, Iran, 8-10 September 2012.
- Binesh, N. Seghatoleslami, Javad Sarolzaei, V. Mahmoodi "Photocatalytic Degradation of Phenol Red Dye Using TiO_2 Nano-Catalyst in a Batch Slurry Reactor", 4th International Congress on Nanoscience & Nanotechnology, University of Kashan, Iran, 8-10 September 2012.
- N. Binesh, V. Mahmoodi, Javad Sargolzaei, N. Seghatoleslami "Removal of Phenol Red Dye from Aqueous Solution by UV/Nano-TiO_2: A Factorial Design Analysis", 4th International Congress on Nanoscience & Nanotechnology, University of Kashan, Iran, 8-10 September 2012.
- V. Mahmoodi, J. Sargolzaei, N. Binesh "Degradation of Naphthalene from Water Using Photocatalytic Process in A Batch Slurry Reactor", 1st National Congress on Nano Materials and Nano Technology, 8-9 March 2012.
- N. Binesh, N. Seghatoleslami, J. Sargolzaei, V. Mahmoodi "Application of Photocatalytic Process to Removal of Phenol Red Dye from Water Using Nano-TiO_2/UV", 1st National Congress on Nano Materials and Nano Technology, 8-9 March 2012.

Personal Skills

In depth practical skills in:

- *Design Expert*
- *Aspen Hysys*
- *MATLAB*
- I.T. skills *including experience in Microsoft Office (Word, Excel, PowerPoint)*

Communication skills

- *Problem solving skills*
- *Leadership*
- *Flexibility (Adapt successfully to change situations & environments)*
- *Self-motivation and ability to take the initiative*

- *Ability to work well under pressure*
- *Teamwork skills*

Activities

- *Working on "Organic Wastewater Treatment with Photocatalysis (Dyes, Polycyclic Aromatic Hydrocarbons) "*
- *Design and Construction of a batch slurry photocatalytic reactor, applicable to refining organic wastewater*
- *Working on "synthesis of nanostructures using magnetized solvents"*