



## Niyaz Mohammad Mahmoodi

Professor

Faculty: Dyes and Pigments Faculty

Department: Department of Environmental Research

چندان که خواهی درنگر در من که نشناسی مرا  
زیرا از آن کم دیده‌ای من صدصفت گردیده‌ام  
در دیده من اندر آوز چشم من بنگر مرا  
زیرا برون از دیده‌ها منزلگهی بگزیده‌ام  
رومی (مولوی)

“Study me as much as you like, you will never know me.  
For I differ a hundred ways from what you see me to be.  
Put yourself behind my eyes, and see me as I see myself.  
Because I have chosen to dwell in a place you can't see”.

**Jalal al-Din Rumi**

\* Prof. Dr. Mahmoodi was ranked in Stanford University study of the world's top 2% of scientists in 2023 (Rank = 22 in Chemical Engineering).

<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/7>

\*\* **h-index: 108** (Citation: 24,022 - Google Scholar Data, February 2025)

<https://scholar.google.com/citations?user=6yscPJwAAAAJ&hl=en&safe=strict>

\*\* **h-index: 106** (Scopus Data, February 2025)

<https://www.scopus.com/authid/detail.uri?authorId=9733238800>

\*\*\* Prof. Dr. Mahmoodi is the Editor-in-Chief of "Sustainable Chemical Engineering".

<https://ojs.wiserpub.com/index.php/SCE/about/editorialTeam>

### PROFESSIONAL INTERESTS:

Prof. Dr. Mahmoodi had received BSc and MSc in Chemistry and PhD in Textile Engineering (Environmental Engineering). He published 238 peer-reviewed papers (ISI Thomson Reuters). His

research focuses on environmental nanotechnology for water and wastewater treatment including the removal of pollutants using different nanomaterials (nanosheets, nanotubes, nanofibers, nanocomposites, and nanoparticles). The main processes are adsorption, advanced oxidation, enzymatic, and membrane.

### **ACADEMIC POSITIONS:**

Department of Environmental Research, Institute for Color Science and Technology, Tehran, Iran

Full Professor: June 2019 - Present

Associate Professor: May 2015 - June 2019

Assistant Professor: January 2011 - May 2015

### **MENTORING, PUBLICATIONS, AND CITATIONS:**

Mentoring: Research mentor to 20 PhD students, and 54 MSc students.

Publications: Authored 238 articles in peer-reviewed journals (2005-2025).

Citations: Over 24,000 total citations with an average of 100 citations per published article.

### **EDUCATION:**

PhD: Textile (Environmental) Engineering, Amirkabir University of Technology, Tehran, Iran, 2008 - 2010.

MSc: Applied Chemistry, Amirkabir University of Technology, Tehran, Iran, 2000 - 2003.

BSc: Chemistry, University of Mazandaran, Babolsar, Iran, 1996 - 2000.

### **Some published papers:**

Clean Laccase immobilized nanobiocatalysts (graphene oxide - zeolite nanocomposites): From production to detailed biocatalytic degradation of organic pollutant

<https://doi.org/10.1016/j.apcatb.2019.118443>

Chitosan adorned with ZIF-67 on ZIF-8 biocomposite: A potential LED visible light-assisted photocatalyst for wastewater decontamination

<https://doi.org/10.1016/j.ijbiomac.2024.137405>

Green and environmentally friendly architecture of starch-based ternary magnetic biocomposite (Starch/MIL100/CoFe<sub>2</sub>O<sub>4</sub>): Synthesis and photocatalytic degradation of tetracycline and dye

<https://doi.org/10.1016/j.ijbiomac.2024.133318>

Heterogeneous MIL-88A on MIL-88B hybrid: A promising eco-friendly hybrid from green synthesis to dual application (Adsorption and photocatalysis) in tetracycline and dyes removal

<https://doi.org/10.1016/j.jcis.2023.10.060>

Hierarchical ternary titanium dioxide decorated with graphene quantum dot/ZIF-8 nanocomposite for the photocatalytic degradation of doxycycline and dye using visible light

<https://doi.org/10.1016/j.jwpe.2023.103976>

Metal-organic frameworks (MIL-101) decorated biochar as a highly efficient bio-based composite

for immobilization of polycyclic aromatic hydrocarbons and copper in real contaminated soil

<https://doi.org/10.1016/j.jece.2022.108821>

Effect of preparation parameters on properties of metakaolin-based geopolymer activated by silica fume- sodium hydroxide alkaline blend

<https://doi.org/10.1016/j.jobe.2022.104984>

Morphological diversity effect of graphene quantum dot/MIL88A(Fe) composites on dye and pharmaceuticals (tetracycline and doxycycline) removal

<https://doi.org/10.1016/j.jece.2022.108321>

Synthesis of visible light activated metal-organic framework coated on titania nanocomposite (MIL-53(Al)@TiO<sub>2</sub>) and dye photodegradation

<https://doi.org/10.1016/j.jssc.2021.122747>

Graphene quantum dot incorporation in the zeolitic imidazolate framework with sodalite (SOD) topology: Synthesis and improving the adsorption ability in liquid phase

<https://doi.org/10.1016/j.jece.2021.106303>

Green synthesis of reduced graphene oxide-CoFe<sub>2</sub>O<sub>4</sub> nanocomposite as a highly efficient visible-light-driven catalyst in photocatalysis and photo Fenton-like reaction

<https://doi.org/10.1016/j.mseb.2021.115223>

Adsorption of azo dyes by a novel bio-nanocomposite based on whey protein nanofibrils and nano-clay: Equilibrium isotherm and kinetic modeling

<https://doi.org/10.1016/j.jcis.2021.05.174>

Synthesis of porous aminated PAN/PVDF composite nanofibers by electrospinning: Characterization and Direct Red 23 removal

<https://doi.org/10.1016/j.jece.2020.103876>

Environmentally friendly novel covalently immobilized enzyme bionanocomposite: From synthesis to the destruction of pollutant

<https://doi.org/10.1016/j.compositesb.2019.107666>

Graphene based ZnO nanoparticles to depolymerize lignin-rich residues via UV/iodide process

<https://doi.org/10.1016/j.envint.2018.12.062>

Cadmium selenide quantum dot-zinc oxide composite: Synthesis, characterization, dye removal ability with UV irradiation, and antibacterial activity as a safe and high-performance photocatalyst

<https://doi.org/10.1016/j.jphotobiol.2018.08.023>

One-pot synthesis of a reduced graphene oxide-ZnO nanorod composite and dye decolorization modeling

<https://doi.org/10.1016/j.jtice.2017.07.038>

Synthesis of nanoparticle and modelling of its photocatalytic dye degradation ability from

colored wastewater

<https://doi.org/10.1016/j.jece.2017.07.010>

Preparation of aminated nanoporous nanofiber by solvent casting/porogen leaching technique and dye adsorption modeling

<https://doi.org/10.1016/j.jtice.2016.05.042>

### Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
Institute for Color Science and Technology	Full Professor	Tenured	Full Time	

### Papers in Journals

1. Niyaz Mohammad Mahmoodi, Mohammad Hosein Saffar ,& Dastgerdi,Clean Laccase immobilized nanobiocatalysts (graphene oxide - zeolite nanocomposites): From production to detailed biocatalytic degradation of organic pollutant,Applied Catalysis B: Environmental,2020.
2. Niyaz Mohammad Mahmoodi, Mina Oveisi, Ali Taghizadeh, Mohsen Taghizadeh,Novel magnetic amine functionalized carbon nanotube/metal-organic framework nanocomposites: From green ultrasound-assisted synthesis to detailed selective pollutant removal modelling from binary systems,Journal of Hazardous Materials,2019 04 15.
3. Niyaz Mohammad Mahmoodi, Ali Taghizadeh, Mohsen Taghizadeh, Jafar Abdi,In situ deposition of Ag/AgCl on the surface of magnetic metal-organic framework nanocomposite and its application for the visible-light photocatalytic degradation of Rhodamine dye,Journal of Hazardous Materials,2019 09 15.
4. Niyaz Mohammad Mahmoodi, Mohammad Hosein Saffar ,& Dastgerdi, Bagher Hayati,Environmentally friendly novel covalently immobilized enzyme bionanocomposite: From synthesis to the destruction of pollutant,Composites Part B: Engineering,2020 03 01.
5. Niyaz Mohammad Mahmoodi, Mina Oveisi, Elham Asadi,Synthesis of NENU metal-organic framework-graphene oxide nanocomposites and their pollutant removal ability from water using ultrasound,Journal of Cleaner Production,2019 02 20.
6. Mina Oveisi, Niyaz Mohammad Mahmoodi, Mokhtar Alinia Asli,Facile and green synthesis of metal-organic framework/inorganic nanofiber using electrospinning for recyclable visible-light photocatalysis,Journal of Cleaner Production,2019 06 10.
7. Niyaz Mohammad Mahmoodi, Mina Oveisi, Ali Taghizadeh, Mohsen Taghizadeh,Synthesis of pearl necklace-like ZIF-8@chitosan/PVA nanofiber with synergistic effect for recycling aqueous dye removal,Carbohydrate Polymers,2020 01 01.
8. Niyaz Mohammad Mahmoodi, Jafar Abdi,Metal-organic framework as a platform of the enzyme to prepare novel environmentally friendly nanobiocatalyst for degrading pollutant in water,Journal of Industrial and Engineering Chemistry,2019 12 25.
9. Niyaz Mohammad Mahmoodi, Samaneh Keshavarzi, Mina Oveisi, Sajad Rahimi, Bagher Hayati,Metal-organic framework (ZIF-8)/inorganic nanofiber (Fe<sub>2</sub>O<sub>3</sub>) nanocomposite: Green synthesis and photocatalytic degradation using LED irradiation,Journal of Molecular Liquids,2019 09 01.
10. Mina Oveisi, Niyaz Mohammad Mahmoodi, Mokhtar Alinia Asli,Halogen lamp activated nanocomposites as nanoporous photocatalysts: Synthesis, characterization, and pollutant degradation

mechanism,Journal of Molecular Liquids,2019 05 01.

11. Niyaz Mohammad Mahmoodi, Mina Oveisi, Atefeh Panahdar, Bagher Hayati, Khadijeh Nasiri,Synthesis of porous metal-organic framework composite adsorbents and pollutant removal from multicomponent systems,Materials Chemistry and Physics,2020 03 01.

12. Niyaz Mohammad Mahmoodi , Mohammad Hosein Saffar , Dastgerdi,Clean Laccase immobilized nanobiocatalysts (graphene oxide - zeolite nanocomposites): From production to detailed biocatalytic degradation of organic pollutant,Applied Catalysis B: Environmental,Vol. 268,2020 07 05.