



Curriculum Vitae

Personal Information

First Name: Razieh

Last Name: Nejat

Gender: Female

Date of Birth: August 23, 1981 (01/06/1360)

Nationality: Iranian

Academic Rank: Associate Professor

Field of Study: Chemistry

Highest Degree: Ph.D.

Address: Kosar University of Bojnourd, Arkan Road, Bojnourd, Iran

Department of Chemistry, Faculty of Basic Sciences.

Phone: —

Mobile: +98 915 325 6151

Email: organochem_nejat@yahoo.com

Passport Number: V63987075.

Field:

- Design and synthesis of heterogeneous and recyclable nanocatalysts
- Photocatalytic reactions for the degradation of antibiotics, toxic dyes, and organic pollutants under visible light irradiation
- Application of nanomaterials in organic synthesis and environmental remediation
- Green chemistry and sustainable catalyst.

Education

Degree	Field of Study	Specialization	Institution	City / Country	From	To	GPA
Postdoctoral Fellow	Chemistry	Nanochemistry	Tarbiat Modares University	Tehran, Iran	2013	2015	–
Ph.D.	Chemistry	Organic Chemistry	Bu-Ali Sina University	Hamedan, Iran	2008	2012	19.53 / 20
M.Sc.	Chemistry	Organic Chemistry	University of Sistan and Baluchestan	Zahedan, Iran	2005	2008	17.60 / 20

Research Projects

• Completed Research Projects:

- Visible light photocatalytic degradation of tetracycline antibiotic and antimicrobial and anticancer activities of $\text{La}_{0.3}\text{Sr}_{0.7}\text{MnO}_3/\text{TiO}_2$ Nanocomposite Based on $\text{g-C}_3\text{N}_4$.
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- Synthesis of a nano-hybrid catalyst consisting of heteropoly acid supported on graphitic carbon nitride and its application for visible-light-driven degradation of Rhodamine B.
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- Synthesis of palladium complex supported on magnetic graphene and its use as an efficient and recyclable catalyst for removal of organic pollutants.
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- Development of a robust, recyclable, mesoporous magnetic organometallic catalyst for photodegradation of organic pollutants.
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- Identification of strategies to increase the dedicated revenues of North Khorasan's Department of Education.
- Comparative analysis of current teaching methods in chemistry with modern educational approaches.
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- Synthesis and application of various magnetic nanoparticles and modified mesoporous silica for use as catalysts and photocatalysts in organic reactions and wastewater treatment.
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- Synthesis of palladium complexes supported on nano-porous and magnetic materials and their use as efficient, recyclable photocatalysts.

Patents

- Synthesis of magnetically recoverable Wilkinson-type selective catalyst.
- Zeolite-catalyzed synthesis of pyrazolo[1,2-a][1,2,4]triazole-1,3-dione derivatives as anti-breast cancer agents (in vitro study on three breast cancer cell lines).

Awards

Recognized as Top Researcher at Kosar University of Bojnourd.

Collaborations

Consultant and supervisor of research projects at North Khorasan Science and Technology Park.

List of JCR Publications

1. **Visible light photocatalytic selective oxidation of alcohols by rhodium@graphitic carbon nitride nanosheets as effective catalyst**
Journal of Photochemistry & Photobiology, A: Chemistry, 2025
2. **Binding Mechanism Between Iron-Related Proteins (Catalase and Transferrin) and Favipiravir**
ChemistrySelect, 2025
3. **Decoration of graphitic carbon nitride nanosheets with silver nanoparticles synthesized using the green method of plant extract *Rheum neyshabourense* sp. as photocatalyst for catalytic degradation of Rhodamine B**
Inorganic Chemistry Research, 2024
4. **Enhancing the photocatalytic efficiency of g-C₃N₄ for ciprofloxacin degradation using Tetrakis (acetonitrile) copper (I) hexafluorophosphate as a highly effective cocatalyst**
Heliyon, 2024
5. **Investigating the Catalytic Effect of Magnetic Palladium Nanohybrid Based on Graphite Carbon Nitride in the Degradation of Methyl Orange Dye Under Visible Light Irradiation**
Journal of Color Science and Technology, 2024
6. **Selective Photochemical Oxidation of Sulfides by Gallium and Sulfur Co-Modified TiO₂/g-C₃N₄ Nanocomposites as catalyst**
Journal of Organometallic Chemistry, 2024
7. **TiO₂ supported-reduced graphene oxide co-doped with gallium and sulfur as an efficient heterogeneous catalyst for the selective photochemical oxidation of alcohols; DFT and mechanism insights**
Journal of Photochemistry & Photobiology, A: Chemistry, 2022

8. **Investigation of the effect of H₃PW₆Mo₆O₄₀/g-C₃N₄ photocatalyst in the degradation of Rhodamine B dye under visible light irradiation**
Journal of Color Science and Technology, 2022
9. **Three-Dimensional Graphene–Magnetic Organometallic Nanohybrid as High-Performance Visible Light Photocatalyst for the C–C Coupling Reactions**
Polycyclic Aromatic Compounds, 2022
10. **Nano-Ferrite ZnFe₂O₄: as Efficient and Re-Usable Catalyst for the synthesis of 4H-Chromenes and 4H-Pyrano [2,3-*c*] pyrazoles**
Inorganic Chemistry Research, 2022
11. **Synthesis and Characterization of a Novel Bio-Magnetically Recoverable Palladium Nanocomposite for the Photocatalytic Applications**
Iranian Journal of Chemistry and Chemical Engineering, 2022
12. **Graphene–Magnetic organometallic Nanohybrid as an efficient catalyst for the degradation of 2,4-dichlorophenol under visible light irradiation**
Iranian Journal of Chemistry, 2022
13. **Fabrication of molybdenum-substituted tungstophosphoric acid immobilized onto functionalized graphene oxide: Visible light-induced photocatalyst for selective oxidation of sulfides to sulfoxides**
Inorganic Chemistry Communications, 2021
14. **g-C₃N₄/H₃PW₄Mo₈O₄₀ S-scheme photocatalyst with enhanced photocatalytic oxidation of alcohols and sulfides**
Inorganic Chemistry Communications, 2021
15. **Palladium Supported on Schiff Base Functionalized Magnetite Nanoparticles as an Efficient Catalyst for Coupling Reactions**
Inorganic Chemistry Research, 2021
16. **Three-dimensional graphene–magnetic Organometallic nanohybrid as High-Performance Visible Light Photocatalyst for the C–C Coupling Reactions**
Polycyclic Aromatic Compounds, 2021
17. **Improving the adsorption potential of chitosan for heavy metal ions using aromatic ring-rich derivatives**
Journal of Colloid and Interface Science, 2020
18. **Catalytic activity and structural changes of catalase in the presence of Levothyroxine and Isoxsuprine hydrochloride**
International Journal of Biological Macromolecules, 2020
19. **Three-Dimensional Graphene–Magnetic Palladium Nanohybrid: A Highly Efficient and Reusable Catalyst for Promoting Organic Reactions**
Catalysis Letters, 2018
20. **Efficient Synthesis of Nickel(II) Complex Supported on Fe₃O₄@SiO₂ Nanoparticles as a New and Facile Catalyst for Various Multicomponent Reactions**
Organic Chemistry Research, 2018
21. **Zeolite-catalyzed synthesis of pyrazolo[1,2-*a*][1,2,4] triazole-1,3-dione derivatives as anti-breast cancer agents**
Journal of the Iranian Chemical Society, 2018

22. **Preparation and characterization of Ni-Modified graphene oxide complex as an efficient catalyst for the synthesis of sulfides via reaction of aryl halides with S8 or thiourea**
Applied Organometallic Chemistry, 2017
23. **Magnetically water-dispersible and recoverable rhodium organometallic catalyst derived from Wilkinson's catalyst for promoting organic reactions**
Applied Organometallic Chemistry, 2017
24. **Active and recyclable ordered mesoporous magnetic organometallic catalyst as high-performance visible light photocatalyst for degradation of organic pollutants**
Applied Organometallic Chemistry, 2016
25. **Highly stable magnetically separable copper nanocatalyst as an efficient catalyst for C(sp²)-C(sp) and C(sp²)-C(sp²) cross-coupling reactions**
Applied Organometallic Chemistry, 2016
26. **Pd-functionalized MCM-41 nanoporous silica as an efficient and reusable catalyst for promoting organic reactions**
RSC Advances, 2015
27. **C(sp²)-C(sp²) cross coupling reactions catalyzed by an active and highly stable magnetically separable Pd-nanocatalyst in aqueous media**
RSC Advances, 2014
28. **3-Hydroxypropylammonium acetate (HPAA) ionic liquid: an effective acidic media in efficient conversion of anilines into aryl isocyanates**
Iranian Journal of Catalysis, 2014
29. **Nano-titania-supported Preyssler-type heteropolyacid: An efficient and reusable catalyst in ultrasound-promoted synthesis of 4H-chromenes and 4H-pyrano[2,3-c]pyrazoles**
Journal of Chemical Science, 2014
30. **Nano-titania sulfuric acid-promoted synthesis of tetrahydrobenzo[b]pyran and 1,4-dihydropyrano[2,3-c]pyrazole derivatives under ultrasound irradiation**
Journal of the Iranian Chemical Society, 2013
31. **Nano-ZnO: An Efficient and Reusable Catalyst for One-Pot Synthesis of 1H-pyrazolo[1,2-b]phthalazine-5,10-diones and pyrazolo[1,2-a][1,2,4]triazole-1,3-diones**
Journal of the Iranian Chemical Society, 2013
32. **Magnetic La_{0.7}Sr_{0.3}MnO₃ Nanoparticles: Recyclable and Efficient Catalyst for Ultrasound-accelerated Synthesis of 4H-Chromenes, and 4H-Pyrano[2,3-c]pyrazoles**
Journal of the Iranian Chemical Society, 2013
33. **1,4-Diazabicyclo[2.2.2]octane-Catalyzed One-Pot Synthesis of Pyrazolo[1,2-a][1,2,4]triazole-1,3-diones under Ultrasound Acceleration**
Journal of Heterocyclic Chemistry, 2013
34. **Ultrasonic-Promoted One-Pot Synthesis of 4H-chromenes, pyrano[2,3-d]pyrimidines, and 4H-pyrano[2,3-c]pyrazoles**
Letters in Organic Chemistry, 2012

35. **Tetrakis(acetonitrile)copper(I) hexafluorophosphate, [Cu(CH₃CN)₄]PF₆ as an efficient catalyst for synthesis of triazolo[1,2-a]indazole-1,3,8-trione and 2H-indazolo[2,1-b]phthalazine-trione derivatives**
Letters in Organic Chemistry, 2012
36. **ULTRASONIC-ASSISTED ONE-POT SYNTHESIS OF PYRAZOLO[1,2-a][1,2,4]TRIAZOLE-1,3-DIONES**
Heterocycles, 2010
37. **Wet 2,4,6-trichloro-1,3,5-triazine (TCT) as an efficient catalyst for the synthesis of 2,4,6-triarylpyridines under solvent-free conditions**
Chinese Chemical Letters, 2010
38. **Acetic acid-promoted condensation of o-phenylenediamine with aldehydes into 2-aryl-1-arylmethyl-1H-benzimidazoles under microwave irradiation**
Journal of the Serbian Chemical Society, 2010
39. **An efficient method for synthesis of organophosphorus compounds in aqueous media**
Chinese Chemical Letters, 2009
40. **A Practical method for synthesis of stable phosphorus ylides in the presence of polyacrylamid in aqueous media**
Phosphorus, Sulfur, and Silicon and the Related Elements, 2008