

Curriculum Vitae

Dr. MOHAMMAD GHANBARI

Assistant Professor of Organic Chemistry
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EDUCATION AND ACADEMIC POSITION

- 2013-Present University of Kashan, Kashan, Iran
Assistant Professor of Organic Chemistry
- 2007-2012 University of Tehran, Tehran, Iran
Ph.D. in Organic Chemistry, adviser: *Prof. E. Kianmehr*
- 2011-2012 Ruprecht-Karls-Universität Heidelberg, Heidelberg, Germany
Visiting Ph.D. student, adviser: *Prof. A. Stephen K. Hashmi*
- 2005-2007 Shahid Beheshti University, Tehran, Iran
M.Sc. in Organic Chemistry, adviser: *Prof. K. Jadidi*

RESEARCH EXPERIENCE

- Since 2013 Development of novel strategies for the synthesis of organic compound using palladium and gold catalysts. Design and preparation of new nanocatalysts and their application in the synthesis of bioactive compound.
- 2007-2012 Ph. D. with *E. Kianmehr*: “*Indole Functionalization via Palladium-Catalyzed Reactions.*” Development of novel method for the Functionalization of Indole using Palladium, including optimization and mechanistic studies, as well as the examination of the reaction scope.
- 2011-2012 Visiting Ph.D. student with *Prof. A. Stephen K. Hashmi*: “*Synthesis of organic compound by gold-catalysis*”. Multi-step synthesis using gold catalyst for a rapid and atom-economical access to the complex core structure.
- 2005-2007 M.Sc. with *Prof. K. Jadidi*: “*investigation of Baeyer-Villiger oxidation reaction on dianyl isatin*”. Novel 1,4-benzoxazine derivatives were synthesized by an efficient and simple method in high yields.

PUBLISHED RESEARCH

A. Articles:

1. Ahmadi, S.; Ghanbari, M.
Synthesis, **2021**, *53*, 775–784. [Link](#)
“From Furan–Yne Systems to para-Benzoquinone Derivatives: Gold-Catalyzed Cyclization and Oxidation, and Further Reduction by Sodium Dithionate”
2. Mollakarimi, N.; Ghanbari, M.
Green Chemistry Letters and Reviews, **2020**, *13*, 192–205. [Link](#)
“Ultrasound-promoted green approach for the synthesis of multisubstituted pyridines using stable and reusable SBA-15@ADMPT/H₅PW₁₀V₂O₄₀ nanocatalyst at room temperature”
3. Ghanbari, M.; Mollakarimi, N.; Ahmadi, S.; Moradi, S.
Journal of the Iranian Chemical Society, **2018**, *15*, 1119–1131. [Link](#)
“A novel inorganic–organic nanohybrid material SBA-15@triazine/H₅PW₁₀V₂O₄₀ as efficient and recyclable catalyst for the one-pot multicomponent synthesis of multisubstituted pyridines”
4. Ghanbari, M.; Moradi, S.; Setoodehkhah, M.
Green Chemistry Letters and Reviews, **2018**, *11*, 111–124. [Link](#)
“Fe₃O₄@SiO₂@ADMPT/H₆P₂W₁₈O₆₂: a novel Wells–Dawson heteropolyacid-based magnetic inorganic–organic nanohybrid material as potent Lewis acid catalyst for the efficient synthesis of 1,4-dihydropyridines”
5. Sarvary, A.; Khosravi, F.; Ghanbari, M.
Monatshefte für Chemie, **2018**, *149*, 39–45. [Link](#)
“Synthesis of fused 1,5-disubstituted tetrazoles via a one-pot Knoevenagel condensation/nucleophilic substitution/intramolecular/intermolecular [3 + 2] cycloaddition reaction”
6. Karimi Behzad, S.; Amini, M. M.; Ghanbari, M.; Janghour, M.; Anzenbacher, P.; Weng Ng, S.
European Journal of Inorganic Chemistry, **2017**, *17*, 3644–3654. [Link](#)
“Synthesis, structure, photoluminescence, and electroluminescence of four novel europium complexes: Fabrication of pure red organic light emitting diodes from europium complexes”
7. Balati, A.; Ghanbari, M.; Karimi Behzad, S.; Amini, M. M.
Acta Chimica Slovenica, **2017**, *64*, 479–490. [Link](#)
“Functionalization of Graphene Oxide with 9-aminoanthracene for the Adsorptive Removal of Persistent Aromatic Pollutants from Aqueous Solution”
8. Ghanbari, M.; Kianmehr, E.; Karimi Behzad, S.; Weng Ng, S.
Journal of the Iranian Chemical Society, **2016**, *13*, 7–18. [Link](#)
“Direct synthesis of benzo[a]carbazoles by palladium-catalyzed domino reactions: synthesis and photophysical properties of diverse benzo[a]carbazoles”

9. Ghanbari, M.; Jadidi, K.; Mehrdad, M.; Assempour, N.
Tetrahedron, **2016**, 72, 4355–4360. [Link](#)
“A simple route for the synthesis of novel 1,4-benzoxazine derivatives by Baeyer–Villiger oxidation reaction”
10. Karimi Behzad, S.; Amini, M. M.; Balati, A.; Ghanbari, M.; Sadeghi, O.
Journal of Sol-Gel Science and Technology, **2016**, 78, 446-456. [Link](#)
“Adsorption and determination of Cr(VI) in environmental samples using triazine-modified Fe₃O₄ nanoparticles: kinetics and equilibrium modeling”
11. Soleimani, E.; Khodaei, M. M.; Mehrdadi-Nejad, P.; Ghanbari, M.
Journal of Chemical Research, **2016**, 40, 371-374. [Link](#)
“The synthesis of dialkylaminonitrile derivatives of 2-formylbenzoic acid by the Strecker reaction in an aqueous medium”
12. Karimi Behzad, S.; Balati, A.; Amini, M. M.; Ghanbari, M.
Microchimica Acta, **2014**, 181, 1781-1788. [Link](#)
“Triazine-modified magnetite nanoparticles as a novel sorbent for preconcentration of lead and cadmium ions”
13. Kianmehr, E.; Shamsaei Zafarghandi, N.; Ghanbari, M.
Molecular Diversity, **2013**, 17, 383-388. [Link](#)
“A Simple Route for the Synthesis of Novel N-Alkyl-2-(alkylthio)-1H-imidazole derivatives”
14. Hashmi, A. S. K.; Ghanbari, M.; Rudolph, M.; Rominger, F.
Chemistry - A European Journal, **2012**, 18, 8113 – 8119. [Link](#)
“Combining Gold and Palladium Catalysis: One-Pot Access of Five-Fold Substituted Arenes From Furan-Yne and En-Diyne Substrates”.
Highlighted in Synfacts 2012; 8(9): 0959. [Link](#)
15. Kianmehr, E.; Ghanbari, M.; Faghieh, N.; Rominger, F.
Tetrahedron Letters, **2012**, 53, 1900–1904. [Link](#)
“Palladium-Catalyzed One-Pot Procedure for Regioselective Dimerization and Cyanation of Indoles”
16. Kianmehr, E.; Ghanbari, M.
European Journal of Organic Chemistry, **2012**, 256–259. [Link](#)
“A Direct Palladium-Catalyzed Route to Synthesis of Novel Benzo[a]carbazoles through Sequential C-C Bond Formation and C-H Bond Functionalization”
17. Mehrdad, M.; Ghanbari, M.; Jadidi, K.; Salemia, A.; Khavasi, H. R.
Acta Crystallographica Section E, **2011**, E67, o49. [Link](#)
“(2Z)-N-(4-Methoxyphenyl)-2-(4-methoxyphenylimino)-2H-1,4-benzoxazin-3-amine”
18. Asgri, D.; Ghanbari, M.; Mehrdad, M.; Jadidia, K.; Khavasia, H. R.
Acta Crystallographica Section E, **2011**, E67, o350. [Link](#)
“(Z)-N-[5-Bromo-2-(4-methylanilino)-3Hindol-3-ylidene]-4-methylaniline oxide”

19. Kianmehr, E.; [Ghanbari, M.](#); Nadiri Niri, M.; Faramarzi, R.
Journal of Combinatorial Chemistry, **2010**, *12*, 41-44. [Link](#)
"Novel One-Pot Three Component Reaction for the Synthesis of [2-(Alkylsulfanyl)imidazo[1,2-a]pyridin-3-yl](aryl)methanone"
20. Kianmehr, E.; Rajabi, A.; [Ghanbari, M.](#)
Tetrahedron Letters, **2009**, *50*, 1687-1688. [Link](#)
"Palladium-catalyzed addition of arylboronic acids to isocyanates"
21. Jadidi, K.; Ghahremanzadeh, R.; Mehrdad, M.; [Ghanbari, M.](#); Arvi Nezhad, H.
Monatshefte für Chemie, **2008**, *139*, 277-280. [Link](#)
"A Simple Indirect Route for the Synthesis of N-Alkyl-4-imino-1,4-dihydro-2H-3,1-benzoxazin-2-ones"

B. Book:

[Ghanbari, M.](#); Ahmadi, S.
Hot Tops of Organic Chemistry, Dr. Khalili Publication Group, **2017**

C. Presentations:

1. [Ghanbari, M.](#); Ahmadi, S.
The 25th Iranian Seminar of Organic Chemistry, Tehran, Iran, **2017**
"Gold- catalyzed one pot synthesis of novel Benzoquinone derivatives from Furan- Yne"
2. [Ghanbari, M.](#); Yazdanseta, S.; Mollakarimi, N.
2nd Iranian Applied Chemistry Seminar, Tehran, Iran, **2017**
"Preparation of novel nanocatalyst SBA-15@Triazine/H₃PW₁₀V₂O₄₀ and its application in the one-pot synthesis of polysubstituted pyridines under microwave irradiation"
3. Moradi, S.; [Ghanbari, M.](#)
8th Seminar of Chemistry and Environment, Tehran, Iran, **2017**
"Preparation and characterization of a novel nanocatalyst Wells–Dawson heteropolyacid based on Fe₃O₄ magnetic nanoparticles and its application in the synthesis of 1,4-dihydropyridine derivatives"
4. Moradi, S.; [Ghanbari, M.](#); Mollakarimi, N.
8th Seminar of Chemistry and Environment, Tehran, Iran, **2017**
"Eco-friendly one-pot synthesis of 2-amino-3-cyanopyridine derivatives under Ultrasonic Irradiation by using novel nanocatalyst SBA-15@ADMPT/HPA"
5. [Ghanbari, M.](#); Akbari, S.
7th Seminar of Chemistry and Environment, Tehran, Iran, **2015**
"New Polymer Materials as a Novel Superadsorbent for Removal of PAHs from Aqueous Solutions"
6. [Ghanbari, M.](#); Karimi Behzad, S.; Amini, M. M.
7th Seminar of Chemistry and Environment, Tehran, Iran, **2015**
"A Novel Sorbent for Adsorption and Determination of Cr(VI) in Environmental Samples"

7. **Ghanbari, M.**; Karimi Behzad, S.; Amini, M. M.
7th Seminar of Chemistry and Environment, Tehran, Iran, 2015
“Aqueous Adsorption of Persistent Aromatic Pollutant by Modified Graphene Oxide Nanocomposite”
8. **Ghanbari, M.**; Mollakarimi, N.
18th Iranian Chemistry Congress, Semnan, Iran, 2015
“A Direct Palladium-Catalyzed Route for the Synthesis of Benzo[a]carbazoles: Synthesis and Photophysical Properties of Diverse Benzo[a]carbazoles”
9. **Ghanbari, M.**; Karimi Behzad, S.; Amini, M. M.
18th Iranian Chemistry Congress, Semnan, Iran, 2015
“Synthesis, Characterization, and Photoluminescent Properties of Novel Europium Complexes: Effect of the Ligand Structure on the Emission Quantum Yield”
10. **Ghanbari, M.**; Karimi Behzad, S.; Amini, M. M.
18th Iranian Chemistry Congress, Semnan, Iran, 2015
“Triazine-functionalized Magnetite Nanoparticles as a Highly Selective Sorbent for Determination of Palladium and Gold Ions in Environmental Samples”
11. **Ghanbari, M.**; Kianmehr, E.; Nadiri Niri, M.; Faramarzi, R.
11th Tetrahedron Symposium, Beijing, China, 2010
“Novel One-Pot Three Component Reaction for the Synthesis of (2-(alkylthio)H-imidazo[1,2-a]pyridin-3-yl)(aryl)methanone”
12. **Ghanbari, M.**; Kianmehr, E.; Faghieh, N.
17th Iranian Seminar of Organic Chemistry, Babolsar, Iran, 2010
(Selected as the best poster)
“Palladium-Catalyzed Direct Cyanation of Indoles through C-H Bond Activation”
13. Jadidi, K.; Ghahremanzadeh, R.; **Ghanbari, M.**
13th Iranian Seminar of Organic Chemistry, Hamadan, Iran, 2006
“A fast and highly efficient method for synthesis of 1,4- benzodiazepine-2,5-diones using basic ionic liquid [bmim]Br as green media”

TEACHING EXPERIENCE

2016-2017	Advanced Organic Chemistry (M.Sc. Course)
2015-Present	Advanced Medicinal Chemistry (M.Sc. Course)
2017-Present	Synthesis of Organic Compounds (M.Sc. Course)
2011	Heterocyclic Chemistry (M.Sc. Course).
2014-Present	Medicinal Chemistry (B.Sc. Course)
2014-Present	Organic Chemistry I, II, III (B.Sc. Course)
2014-Present	English for Chemistry (B.Sc. Course)
2014-Present	General Chemistry (B.Sc. Course)
2014-Present	Laboratory of Organic Chemistry I, II (B.Sc. Course)

HONORS AND AWARDS

- 2017** Distinguished Teacher in Organic Chemistry of University of Kashan
- 2017** University of Kashan, Research Grant, Number: 682225
- 2016** University of Kashan, Research Grant, Number: 573600

- 2014** University of Kashan, Research Grant, Number: 364536
- 2011** Awarded a scholarship from Ministry of Science, Research and Technology of the Iran for research
- 2007** Ranked at position **2** in the Ph.D. Entrance Exam University of Tehran
- 2007** Ranked at position **2** in the Ph.D. Entrance Exam of Kharazmi University
- 2005** Ranked at position **77th** among **8319** graduated chemistry examinees in the nationwide Master of Science entrance examination of Iran universities in.
- 2007** Ranked at position **1** in the M.Sc. course.
- 2007** Member of Institute of National Elite of Iran.