

## **A. Personal Information**

Name: Ghodsieh Bagherzade

Date of Birth: 1960

Place of Birth: Birjand, Iran

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## **B. Education:**

B.Sc.: Shiraz University, 1986

M.Sc.: Moscow State University. Moscow Russia, 1995

PhD: Ferdowsi University. Mashhad, Iran 2005

## **C. Academic Experiences**

Chemistry Department, University of Birjand, Birjand, Iran, Associate Professor

## **D. Papers:**

### **a) Seminars and Conferences:**

**1.** G.A. Korshunova, N.V. Sumbatyan, **Gh. Bagherzadeh**, I.A. Prudchenko, I.I. Mikhaleva "The Synthesis of Peptide Analogues of Oligonucleotides" **24th Symposium of the European Peptide Society.**

**2.** **Gh. Bagherzade**, M. Mogharabi, M. Kermani. "PEG-SO<sub>3</sub>H catalyzed coumarin synthesis via Pechmann condensation" **17<sup>th</sup> Iranian Seminar on Organic Chemistry, Babolsar, Iran, 13-15 October 2010.**

**3.** **Gh. Bagherzade**, M. Bakavoli, A Moghimi, M. Kermane, M. Bahrenie "Synthesis and antibacterial evaluation of several pyrimidine derivatives" **Biopharma Asia Convention 2010, Singapore, Singapore, 16-19 March 2010.**

**4.** R. Amraei, M. Firoozabadi, **Gh. Bagherzade**, Z. Asjadian "Investigation of 2- ((4-(diethylamino) -6- methyl-5-nitropyrimidin-2-yl) amino) propanoic acid for EPR dosimetry with 10 MeV electron irradiation" **19<sup>th</sup> Iranian's Nuclear Conference, Mashhad, Iran, 20-21 February 2013.**

**5.** **Gh. Bagherzade**, H. Soltanian, H. Safaei, M. Hoseini "Application of microwaves in extraction of alkaloids from fresh and dried Jujube" **2<sup>th</sup> National Congress on Medicinal plants, Tehran, Iran, 15-16 May 2013.**

- 6. Gh. Bagherzade, K. shafiee nejad, Sh. Ghollasimood “Determination and comparison of total phenolic and flavonoids compounds in fresh and frozen samples of red Cabbage (Brassica)” 3<sup>th</sup> National Congress on Medicinal plants, Mashhad, Iran, 15-16 May 2014.**
- 7. Gh. Bagherzade, R. Hosseinabadi, M. Damankhorshid “Environmentally friendly synthesis of 1,4-dihydropyridines in the presence of diethyl amine functionalized polyethylene glycol”, 17<sup>th</sup> Iranian Chemistry Congress, Rafsanjan, Iran, 1-3 september 2014.**
- 8. Gh. Bagherzade, S. Aryanejad, “Introducing nanocrystalline CeO<sub>2</sub> as heterogeneous environmental friendly catalyst for the solventless expeditious synthesis of  $\alpha$ -aminonitriles” 2<sup>th</sup> Iranian Student Chemistry Conference, Rasht, Gilan, 6-9 October 2015.**
- 9. Gh. Bagherzade, S. Aryanejad, H. Esmailpour “Diethylamine functionalized polyethylene glycol as a mild, efficient and reusable catalyst for the synthesis of azo-dyes” 2<sup>th</sup> Iranian Student Chemistry Conference, Rasht, Gilan, 6-9 October 2015.**
- 10. Gh. Bagherzade, S. Aryanejad, S. M. Hosseini “Synthesis and characterization a series of novel Schiff bases containing pyrimidinylhydrazone derivatives” 2<sup>th</sup> Iranian Student Chemistry Conference, Rasht, Gilan, 6-9 October 2015.**
- 11. Gh. Bagherzade, S. Aryanejad, A. Farrokhi, Z. Rezaee “Novel Cu (II) Metal Organic Framework as Selective Catalyst for the Oxidation of Benzylic Alcohols” 1<sup>th</sup> Iranian Applied Chemistry Seminar, Tabriz, Iran, 22-23 August 2016.**
- 12. Gh. Bagherzade, S. Aryanejad, A. Farrokhi, S. Yousefi “Synthesis, Characterization and Catalytic Activity of Copper Complex with 5-((pyridin-2-yl)methyleneamino)-2,6-dimethylcyclohex-4-ene-1,3-dione” 1<sup>th</sup> Iranian Applied Chemistry Seminar, Tabriz, Iran, 22-23 August 2016.**
- 13. Magnetic nanoparticles Embedded in Pectin-based as an Environmentally Friendly Recyclable Nanocatalyst (Lecture), 3<sup>rd</sup> Applied Chemical Science and Technology Conferences Geochemistry and Environmental Chemistry, January 13, 2021.**
- 14. Biosynthesis of organic nanocomposite using Pistacia Vera L. hull: An efficient antimicrobial agent., 3<sup>rd</sup> Applied Chemical Science and Technology Conferences Geochemistry and Environmental Chemistry, January 13, 2021.**
- 15. Use of pectin as a suitable substrate for catalyst synthesis Fe<sub>3</sub>O<sub>4</sub>@Pectin@Ni (II) and its application in oxidation reaction., 3<sup>rd</sup> Applied Chemical Science and Technology Conferences Geochemistry and Environmental Chemistry, January 13, 2021.**
- 16. Biosynthesis of antimicrobial nanocomposite using Pistacia Vera L. hull., 8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**
- 17. A Green Method for Synthesizing Nickel Nanoparticles Supported by Magnetized Pectin., 8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**
- 18. Study on the Schiff Base Complex of Ni(II) Derived from p-Phenylenediamine and Piconal on the Magnetic Nanocatalyst coated with Pectin., 8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**
- 19. 2,2'-((1E,1'E)-(1,2-phenylenebis(azaneylylidene))bis(methaneylylidene))bis(4-(chloromethyl) phenol) a new Salophen ligand Supported on the cellulose magnetic nanoparticle**

and Cu(II) as a novel heterogeneous magnetic nanocatalyst., **8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**

**20.** Magnetic cellulose nanofibers (CNF) coated with Fe<sub>3</sub>O<sub>4</sub> containing uniformly dispersed Co(II) nanoparticles as stable and high-performance catalyst., **8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**

**21.** Crystal structure and magnetic properties single-site trinuclear manganese clusters synthesized on the superparamagnetic Fe<sub>3</sub>O<sub>4</sub> nanoparticles coated with cellulose nanofiber., **8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**

**22.** Cobalt nanoparticles decorated on 6,6'-((1E,1'E)-(1,4-phenylenebis (azaneylylidene))bis(methaneylylidene))bis(3-(chloromethyl) phenol) ligand and magnetic nanoparticle coated on the cellulose as a recoverable and powerful bi-nuclear catalyst., **8<sup>th</sup> International E-congress on Nanosciences and Nanotechnology. February 17-18, 2021.**

**23.** An examination of antibacterial properties and chemical profile of methanolic extract of Agaricus bisporus wild edible mushroom, Zarnagh region (East Azerbaijan province, Iran)., **3<sup>rd</sup> International Congress and 4<sup>th</sup> National Conference on Biotechnology of Medicinal Plants and Mushrooms. May 18, 2021.**

#### **b) Publications:**

1. **Gh. Bagherzade**, G. A. Korshunova, N. V. Sumbatian “Preparative Syntheses of Natural Nucleoamino acid -3(benzylaminopurin-9-yl) Alanine” 456, 1998.
2. G.A. Korshunova, N.V. Sumbatyan, **Gh. Bagherzadeh**, I.A. Prudchenko, I.I. Mikhaleva “The Synthesis of Peptide Analogues of Oligonucleotides” Peptides, c. 549-550, 1996
3. M. Bakavoli, **Gh. Bagherzadeh**, M. Rahimizadeh, “Synthesis of optically active imidazo [1, 2-a] pyrimidin-3 (2H)-ones,” Mendelev Commun., vol. 15, no. 4, pp. 145–146, 2005.
4. M. Bakavoli, **Gh. Bagherzadeh**, M. Vaseghifar, A. Shiri, P. Pordeli, “Iodine catalysed synthesis and antibacterial evaluation of thieno [2, 3-d] pyrimidine derivatives,” J. Chem. Res., vol. 2009, no. 11, pp. 653–655, 2009.
5. M. Bakavoli, **Gh. Bagherzadeh**, M. Vaseghifar, A. Shiri, M. Pordel, M. Mashreghi, P. Pordeli, M. Araghi, “Molecular iodine promoted synthesis of new pyrazolo [3, 4-d] pyrimidine derivatives as potential antibacterial agents,” Eur. J. Med. Chem., vol. 45, no. 2, pp. 647–650, 2010.
6. M. Mogharabi, N. Nassiri-Koopaei, M. Bozorgi-Koushalshahi, N. Nafissi-Varcheh, **Gh. Bagherzadeh**, M. A. Faramarzi, “Immobilization of laccase in alginate-gelatin mixed gel and decolorization of synthetic dyes,” Bioinorg. Chem. Appl., vol. 2012, 2012.
7. S. A. A. Sajadi, **Gh. Bagherzadeh**, M. Kermane, M. Khaleghian, “Complex Bilding Behavior of 2 ((4-Methyl-5-Nitro-6-(Pyrolidine-1-yl) Pyrimidine-2-yl) Amino) Propionic Acid in Aqueous Solution,” Open J. Inorg. Non-metallic Mater., vol. 3, no. 1, p. 6, 2013.
8. **Gh. Bagherzade**, M. Mogharrabi, and M. A. Faramarzi, “Laccase-catalyzed synthesis of 4-hydroxycoumarin derivatives,” Pure Appl Chem Sci, vol. 1, pp. 75–82, 2013.
9. M. Kermani, **Gh. Bagherzade**, M. I. Hossain “Synthesis of several 7,8-dihydro-6H-pyrimido[5,4-b][1,4] oxazin-6-ones”IJMSI., Vol. 1, no. 5, pp. 271-279, 2013.
10. **Gh. Bagherzade**, Rahele Hosseinabadi, Z. Arabpoor “Applying saffron petal and oriflamme as wastage for wool yarn dying and color fastness” Journal of Saffron Research. vol. 1, no. 2, pp. 136-143, 2013.

11. Z. Moodi, **Gh. Bagherzade**, M. A. Firoozabadi "Developing gain parameters and ranking of different samples of produced barberry using the hierarchical analysis" Asian Journal of Research in Business Economics and Management, vol. 4, no. 10, pp. 474-478, 2014.
12. **Gh. Bagherzade**, M. Dourandishana, M. Malekaneh, "Antidiabetic effects of *Otostegia persica* root in alloxan-induced diabetic rats," Pure Appl Chem Sci, vol. 2, pp. 1-9, 2014.
13. S. A. A. Sajadi, **G. Bagherzadeh**, M. Khaleghian, and M. Kermani, "Stability of Binary and Ternary Copper (II) Complexes of 2 ((4-methyl-5-nitro-6-(pyrrolidine-1-yl) pyrimidine-2-yl) amino) propionic acid, in Aqueous Solution," Sci. Iran., vol. 21, no. 6, pp. 2029-2035, 2014.
14. S. A. A. Sajadi, **Gh. Bagherzadeh**, M. Khaleghian, M. Mirbagheri, H. Safaie, "Equilibrium studies of 2, 2'-(5-bromo-6-methylpyrimidine-2, 4-diyl) bis (azanediyl) dipropanoic acid with some transition-metal ions in aqueous solution," Quim. Nova, vol. 37, no. 5, pp. 896-899, 2014.
15. M. Kermanioryani, L. B. Ismail, M. I. A. Mutalib, and **G. Bagherzadeh**, "Removal of Methylene Blue from Aqueous Solution by Ionic Liquid," Appl. Mech. Mat, vol. 625, pp. 241-244, 2014.
16. Z. Moodi, **Gh. Bagherzade**, "South Khorasan Province, Iran the largest producer of *Berberis vulgaris* in the World: investigation of tannin content in the fruit."
17. **Gh. Bagherzade**, A. Zali, A. Shokrolahi, "Preparation of aromatic nitriles via direct oxidative conversion of benzyl alcohols, aldehydes and amines with pentylpyridinium tribromide in aqueous  $\text{NH}_4\text{OAc}$ ," Chinese Chem. Lett., vol. 26, no. 5, pp. 603-606, 2015.
18. Sh. Ghollasimood, M. Hosseini, Sh. Sedaghatthoor, **Gh. Bagherzade** "A comparative study of phenolic anthocyanin, flavonoid compounds and antioxidant properties of medicinal fruit of *Vaccinium arctostaphylos* L." JBES, vol. 6, no. 4, pp. 197-204, 2015.
19. **Gh. Bagherzade**, R. Hosseinabadi, M. Manzary Tavakoli "Qualitative and quantitative investigation of physicochemical and phytochemical factors of saffron waste and determination of anthocyanin content using ultrasound waves" Journal of saffron research, vol. 4, no. 2, pp. 149-158, 2016.
20. Rustaii, B., **Bagherzade, G.**, & Khani, R. (2016). Phytochemical and Physicochemical Studies of *Ziziphus spina-christi* (L.).
21. **Bagherzade, G.**, & Aryanejad, S. (2016). Green One-pot Synthesis of  $\alpha$ -aminonitriles by Nanocrystalline  $\text{CeO}_2$  as Heterogeneous Environmental Friendly Catalyst. Current Catalysis, 5(3), 220-227.
22. S. Aryanejad, **Gh. Bagherzade**, A. Farrokhi, "A nanoscale Cu-metal organic framework with Schiff base ligand: Synthesis, characterization and investigation catalytic activity in the oxidation of alcohols," Inorg. Chem. Commun., vol. 81, pp. 37-42, 2017.
23. S. Aryanejad, **Gh. Bagherzade**, A. Farrokhi, "Efficient and recyclable novel Ni-based metal-organic framework nanostructure as catalyst for the cascade reaction of alcohol oxidation-Knoevenagel condensation," Appl. Organomet. Chem., 2017.
24. **Gh. Bagherzade**, S. Aryanejad, "Green One-pot Synthesis of  $\alpha$ -aminonitriles by Nanocrystalline  $\text{CeO}_2$  as Heterogeneous Environmental Friendly Catalyst," Curr. Catal. vol. 5, no. 3, pp. 220-227, 2016.
25. R. Khani, Z. Rostami, **Gh. Bagherzade**, V. Khojeh, "Extraction and Determination of Trace Amounts of p-Coumaric Acid in Vinegar, Carrot Juice, and Seed Extract from *Silybum marianum* (L.) Gaertn.," J. AOAC Int., 2017.

26. **Gh. Bagherzade**, M. Manzary Tavakoli "Identification of two new sugars in wastage of *Crocus sativus* L. by GC-MS" Journal of saffron research, vol. 5, no. 1, pp. 90-99, 2017.
27. **Gh. Bagherzade**, M. M. Tavakoli, M. H. Namaei, "Green synthesis of silver nanoparticles using aqueous extract of saffron (*Crocus sativus* L.) wastages and its antibacterial activity against six bacteria," Asian Pac. J. Trop. Biomed., vol. 7, no. 3, pp. 227–233, 2017.
28. **Gh. Bagherzade**, M. Nakhaee "Quantitative and qualitative physicochemical, phytochemical investigations and antioxidant activity of *Pistacia atlantica*, plant leaf extract, native of Birjand city" Journal of Plant Researches, vol. 30, no. 2, pp. 323–336, 2017.
29. M. Mogharabi-Manzari, M. Amini, M. Abdollahi, M. Khoobi, **Gh. Bagherzadeh**, and M. A. Faramarzi, "Co-immobilization of Laccase and TEMPO in the Compartments of Mesoporous Silica for a Green and One-Pot Cascade Synthesis of Coumarins by Knoevenagel Condensation," Chem. Cat. Chem., vol. 10, no. 7, pp. 1542–1546, 2018.
30. M. Ebrahimpour, **Gh. Bagherzade**, S. A. A. Sajadi, and R. Khani, "Synthesis a New Schiff Base as a Chelating Agent for Reliable Quantification of Zinc from Water and Biological Samples," Eurasian J. Anal. Chem., vol. 13, p. 5, 2018.
31. M. Ebrahimpour, **Gh. Bagherzade**, A. A. Sajadi, and R. Khani, "Synthesis, characterization and selective oxidation using a new copper (II) Schiff base complex derived from Alanine and 4-chloro3-formyl coumarin," Iran. Chem. Commun., vol. 6, pp. 228–241, 2018.
32. Ebrahimpour, M., **Bagherzade, G.**, Sajadi, S. A. A., & Khani, R. (2018). Synthesis a New Schiff Base as a Chelating Agent for Reliable Quantification of Zinc from Water and Biological Samples. Eurasian Journal of Analytical Chemistry, 13(5), em65.
33. Aryanejad, S., **Bagherzade, G.**, & Farrokhi, A. (2018). Efficient and recyclable novel Ni-based metal–organic framework nanostructure as catalyst for the cascade reaction of alcohol oxidation–Knoevenagel condensation. Applied Organometallic Chemistry, 32(2), e3995.
34. Khani, R., Rostami, Z., **Bagherzade, G.**, & Khojeh, V. (2018). Extraction and Determination of Trace Amounts of p-Coumaric Acid in Vinegar, Carrot Juice, and Seed Extract from *Silybum marianum* (L.) Gaertn. Journal of AOAC International, 101(2), 490-497.
35. Khani, R., Roostaei, B., **Bagherzade, G.**, & Moudi, M. (2018). Green synthesis of copper nanoparticles by fruit extract of *Ziziphus spina-christi* (L.) Willd.: application for adsorption of triphenylmethane dye and antibacterial assay. Journal of Molecular Liquids, 255, 541-549.
36. Sheykhi, R., **Bagherzade, G.**, & Khani, R. (2018). The application of gas chromatography to detect and analyze the fatty acids content and its phytochemical properties in *Ferulago angulate* (Schlecht.) Boiss. Iranian Journal of Medicinal and Aromatic Plants Research, 34(5), 757-765.
37. S. Aryanejad, **Gh. Bagherzade**, and M. Moudi, "Design and development of novel Co-MOF nanostructures as an excellent catalyst for alcohol oxidation and Henry reaction, with a potential antibacterial activity," Appl. Organomet. Chem., vol. 33, no. 6, p. e4820, 2019.
38. R. Khani, R. Sheykhi, and **Gh. Bagherzade**, "An environmentally friendly method based on micro-cloud point extraction for determination of trace amount of quercetin in food and fruit juice samples," Food Chem., vol. 293, pp. 220–225, 2019.

39. H. Beyzaei, H. H. Moghadam, **Gh. Bagherzade**, R. Aryan, and M. Moghaddam-Manesh, "Synthesis and In Vitro Antibacterial Evaluation of Schiff Bases Derived FROM 2-Chloro-3-Quinolinecarboxaldehyde," *Avicenna J. Med. Biochem.*, vol. 7, no. 1, pp. 9–15, 2019.
40. R. Sheykhi, **Gh. Bagherzade**, and R. Khani, "The application of gas chromatography to detect and analyze the fatty acids content and its phytochemical properties in *Ferulago angulate* (Schlecht.) Boiss.," *Iran. J. Med. Aromat. Plants*, vol. 34, pp. 757–765, 2018.
41. Bagherzade, G., & Manzaritavakoli, M. (2019). Introduction of Green pH Indicator from Saffron Petals and Determination of Anthocyanins Content from its Wastes. *Journal of Saffron Research*, 6(2), 155-166.
42. Beyzaei, H., Moghadam, H. H., Bagherzade, G., Aryan, R., & Moghaddam-Manesh, M. (2019). Synthesis and In Vitro Antibacterial Evaluation of Schiff Bases Derived from 2-Chloro-3-Quinolinecarboxaldehyde. *Avicenna Journal of Medical Biochemistry*, 7(1), 9-15.
43. Moudi, M., Zivyar, N., & **Bagherzade, G.** (2020). Identification of phenolic and flavenoid compounds in *Crocus pallasii* subsp. *haussknechtii* (Boiss. & Reut. ex Maw) B. Mathew. and antibacterial analysis. *Journal of Saffron Research*, 8(1), 127-140.
44. Zivyar, N., **Bagherzade, G.**, Moudi, M., & Manzari Tavakoli, M. (2021). Evaluation of the green synthesis, characterization and antibacterial activity of silver nanoparticles from corm extract of *Crocus sativus* var. *Haussknechtii*. *Journal of Horticulture and Postharvest Research*, 4(Special Issue-Recent Advances in Saffron), 19-32.
45. Ghamari Kargar, P., & **Bagherzade, G.**, and Eshghi, H. (2020). Novel biocompatible core/shell  $\text{Fe}_3\text{O}_4@\text{NFC}@\text{Co}$  (ii) as a new catalyst in a multicomponent reaction: an efficient and sustainable methodology and novel reusable material for one-pot synthesis of 4 H-pyran and pyranopyrazole in aqueous media. *RSC Advances*, 10(61), 37086-37097.
46. Ghamari Kargar, P., & Aryanejad, S., and **Bagherzade, G.** (2020). Simple synthesis of the novel Cu-MOF catalysts for the selective alcohol oxidation and the oxidative cross-coupling of amines and alcohols. *Applied Organometallic Chemistry*, 34(12), e5965.
47. Ghamari Kargar, P., & **Bagherzade, G.**, and Eshghi, H. (2020). Design and synthesis of magnetic  $\text{Fe}_3\text{O}_4@\text{NFC}-\text{ImSalophCu}$  nanocatalyst based on cellulose nanofibers as a new and highly efficient, reusable, stable and green catalyst for the synthesis of 1, 2, 3-triazoles. *RSC Advances*, 10(54), 32927-32937.
48. Khashei Siuki, H., **Bagherzade, G.**, & Ghamari Kargar, P. (2020). A Green Method for Synthesizing Nickel Nanoparticles Supported by Magnetized Pectin: Applied as a Catalyst for Aldehyde Synthesis as a Precursor in Xanthan Synthesis. *ChemistrySelect*, 5(43), 13537-13544.
49. Ghamari Kargar, P., & **Bagherzade, G.** (2021). Robust, highly active, and stable supported Co (ii) nanoparticles on magnetic cellulose nanofiber-functionalized for the multi-component reactions of piperidines and alcohol oxidation. *RSC Advances*, 11(38), 23192-23206.
50. Ghamari Kargar, P., Noorian, M., Chamani, E., **Bagherzade, G.**, & Kiani, Z. (2021). Synthesis, characterization and cytotoxicity evaluation of a novel magnetic nanocomposite with iron oxide deposited on cellulose nanofibers with nickel ( $\text{Fe}_3\text{O}_4@\text{NFC}@\text{ONSM}-\text{Ni}$ ). *RSC Advances*, 11(28), 17413-17430.
51. Ghamari Kargar, P., & **Bagherzade, G.** (2021). The anchoring of a Cu (ii)–salophen complex on magnetic mesoporous cellulose nanofibers: green synthesis and an investigation of its catalytic role in tetrazole reactions through a facile one-pot route. *RSC Advances*, 11(31), 19203-19220.

52. Ghamari Kargar, P., **Bagherzade, G.**, & Eshghi, H. (2021). Introduction of a trinuclear manganese (iii) catalyst on the surface of magnetic cellulose as an eco-benign, efficient and reusable novel heterogeneous catalyst for the multi-component synthesis of new derivatives of xanthene. *RSC Advances*, 11(8), 4339-4355.
53. Ghamari Kargar, P., Ravanjamjah, A., and **Bagherzade, G.** (2021). A novel water-dispersible and magnetically recyclable nickel nanoparticles for the one-pot reduction-Schiff base condensation of nitroarenes in pure water. *Journal of the Chinese chemical of society*, <https://doi.org/10.1002/jccs.202100172>.
54. Bakhshi, O., **Bagherzade, G.** & Ghamari Kargar, P. (2021). Biosynthesis of Organic Nanocomposite Using Pistacia vera L. Hull: An Efficient Antimicrobial Agent. *Bioinorganic Chemistry and Applications*, 2021.
55. Beyzaei, H., Sargazi, S., **Bagherzade, G.**, Moradi, A., & Yarmohammadi, E. (2021). Ultrasound-Assisted Synthesis, Antioxidant Activity and Computational Study of 1, 3, 4-Oxadiazol-2-amines. *Acta Chimica Slovenica*, 68(1), 109-117.
56. Karbasaki, S. S., **Bagherzade, G.**, Maleki, B., & Ghani, M. (2021). Fabrication of sulfamic acid functionalized magnetic nanoparticles with dendrimeric linkers and its application for microextraction purposes, one-pot preparation of pyrans pigments and removal of malachite green. *Journal of the Taiwan Institute of Chemical Engineers*, 118, 342-354.
57. Karbasaki, S. S., **Bagherzade, G.**, Maleki, B., & Ghani, M. (2021). Magnetic Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> Core-Shell Nanoparticles Functionalized with Sulfamic Acid Polyamidoamine (PAMAM) Dendrimer for the Multicomponent Synthesis of Polyhydroquinolines and Dihydro-1H-Indeno [1, 2-b] Pyridines. *Organic Preparations and Procedures International*, 53(5), 498-508.
58. Ghamari Kargar, P., Ghasemi, M., **Bagherzade, G.** (2021). Copper (II) Supported on a Post-Modified Magnetic Pectin Fe<sub>3</sub>O<sub>4</sub>@Pectin~Imidazole~SO<sub>3</sub>H-Cu(II): An Efficient Biopolymer-Based Catalyst for Selective Oxidation of Alcohols with Aqueous TBHP. *Scientia Iranica*, (), -. doi: 10.24200/sci.2021.58355.5689.
59. Ghamari Kargar, P., & **Bagherzade, G.** (2021). A Green Synthesis Strategy of Binuclear catalyst for the CC Cross-coupling Reactions in the Aqueous Medium: Hiyama and Suzuki-Miyaura reactions as case studies. *Frontiers in Chemistry*, 9.
60. **Bagherzade, G.**, Khashei Siuki, H., & Ghamari Kargar, P. (2021). Use of pectin as a suitable substrate for catalyst synthesis Fe<sub>3</sub>O<sub>4</sub>@Pectin@Ni(II) and its application in oxidation reaction. *Medbiotech Journal*, 5(02), 1-8.
61. **Bagherzade, G.**, Bakhshi, O., & Ghamari Kargar, P. (2021). Biosynthesis of organic nanocomposite using Pistacia Vera L. hull: An efficient antimicrobial agent. *Medbiotech Journal*, 5(3), 41-48.
62. Ghamari Kargar, P., **Bagherzade, G.**, & Ghasemi, M. (2021). Magnetic nanoparticles embedded in pectin-based as an environmentally friendly recyclable nanocatalyst. *Medbiotech Journal*, 5(02), 9-14.
63. Moodi, Z., **Bagherzade, G.**, & Peters, J. (2021). Quercetin as a precursor for the synthesis of novel nanoscale Cu (II) complex as a catalyst for alcohol oxidation with high antibacterial activity. *Bioinorganic chemistry and applications*, 2021.
64. Nameni, A., **Bagherzade, G.**, Moudi, M., & Ghamari Kargar, P. (2022). Examination of the chemical profile of methanolic extract of Agaricus bisporus wild edible mushroom, Zarnagh region (East Azerbaijan province, Iran). *Journal of Horticulture and Postharvest Research*, 1-12.

65. Motlagh, N. V., Derogar, S., **Bagherzade, G.**, & Gholami, R. (2022). Preparation and characterization of anti-stain self-cleaning coating on ceramic. *Materials Chemistry and Physics*, 276, 125278.

**E: Research interest:**

Chemistry of Natural product,  
Heterocyclic chemistry,  
phytochemistry

**F: Projects:**

1. R. Amraei, M. Firoozabadi, **Gh. Bagherzade**, Z. Asjadian “Electron paramagnetic resonance (EPR) study of N-hetroarylamino acid free radicals induced by 10MeV electron beam irradiation for dosimetry”
2. **Gh. Bagherzade**, M Bakavoli, M Kermane, Ali Mogheme, M Bahrene “Synthesis and investigation of antibacterial and mutagenicity effect of pyrimidine derivatives”
3. **Gh. Bagherzade**, R. Hosseinabadi “Synthesis hydrazinium 5- Amino tetrazole”
4. **Gh. Bagherzade**, R. Hosseinabadi “Investigation of extraction of dye from saffron wastage”
5. **Gh. Bagherzade**, R. Hosseinabadi “Comparison of biological activities of saffron from different region of Iran”
6. **Gh. Bagherzade**, S. Aryanejad “Synthesis and characterization of the novel MOFs based on Schiff-base as a linker and investigation of their catalytic and biological applications”

**F) Patent certificate (Iranian)**

**Gh. Bagherzade** (Intellectual Property 40 %), M. Nakhaee (Intellectual Property 60 %) “Herbal ointment for relieving muscle pain”, Patent Number: 89078.

**G: Supervision of more than 35 master's and doctoral dissertations in the field of organic chemistry and phytochemistry**