


CURRICULUM VITAE

Personal information	
<i>Name</i>	Moones Honarmand
<i>Place and Date of Birth</i>	Zahedan, Iran, 1984
<i>Nationality</i>	Iranian
<i>Marital Status</i>	Married
<i>Business Address</i>	Department of Chemical Engineering, Birjand University of Technology, Birjand, Iran.
<i>Phone</i>	+98(56)32391306
<i>Academic Degree</i>	Ph. D. of Organic Chemistry
<i>Academic Position</i>	Associate Professor of Organic Chemistry
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Academic information	
<i>B.Sc.</i>	Chemistry, University of Sistan and Baluchestan, Iran, 2002-2006.
<i>M. Sc.</i>	Organic Chemistry, University of Sistan and Baluchestan, Iran, 2007-2009.
<i>Title of M.Sc. thesis</i>	Organic chemistry reactions based on Coumarin compound.
<i>Ph.D.</i>	Organic Chemistry, University of Birjand, Iran, 2009-2013.
<i>Title of Ph.D. thesis</i>	Applications of functionalized ionic liquids in organic reactions.

Courses Thought

General Chemistry, B. Sc.

Analytical Chemistry, B.Sc.

Organic Chemistry, B. Sc.

Biochemistry, B. Sc.

Mineral analysis methods, B. Sc.

Introduction to biological sciences, B.Sc.

Laboratory of Mineral analysis methods, B. Sc.

General Chemistry Laboratory, B.Sc.

Analytical Chemistry Laboratory, B.Sc.

Organic Chemistry Laboratory, B. Sc.

Distinctions and Honors

Membership in the National Elites Foundation.

Dr. Kazemi Ashtiani Award from Elite National Foundation.

Rank no.1 in M.SC. Graduate student of University of Sistan and Baluchestan (Average= 19.55).

Rank no.1 in Ph.D Graduate student of University of Birjand (Average= 19.63).

Top researcher at the Faculty of Mining, Civil and Chemical Engineering (in 2019)

Research Interests

Synthesis, characterization and catalytic activity of:

- Nanocatalyst
- Ionic liquids
- Molten salts

Development of new sustainable catalytic methods.

Green synthesis of nanoparticles and nanocomposites.

Skills

- Devices:
NMR, GC-MS, FTIR, SEM, TEM, EDX, AFM, TGA, BET, XRD, DLS, etc.
- Computational softwares:
Chemdraw, Mendeley, Word, Adobe Photoshop, Excel, etc.

Publications (ISI Papers)

Moones Honarmand, Malihe Amini, Atena Naeimi, Arman Iranfar "Green synthesis of ZnO/SnO₂ nanocomposites using pine leaves and their application for the removal of heavy metals from aqueous media" *Journal of Cluster Science*, 2020, DOI: 10.1007/s10876-020-01960-yJCS-P-20-05-0448.R2

Marieh Honarmand, Mohammad Mirzadeh, **Moones Honarmand** "Green synthesis of SnO₂-ZnO-eggshell nanocomposites and study of their application in removal of mercury (II) ions from aqueous solution" *Journal of Environmental Health Science and Engineering*, 2020, 18, 1581.

Moones Honarmand, Morteza Golmohammadi, Javad Hafezi-bakhtiari " Synthesis and characterization of SnO₂ NPs for photodegradation of eriochrome black-T using response surface methodology" *Environmental Science and Pollution Research*, 2021, 28, 7123.

Reza Shirmehenji, Sepideh Javanshir, **Moones Honarmand** "A Green Approach to the Bio-based Synthesis of Selenium Nanoparticles from Mining Waste" *Journal of Cluster Science*, 2020, DOI: 10.1007/s10876-020-01892-7.

Morteza Golmohammadi, **Moones Honarmand**, Saeed Ghanbari "A green approach to synthesis of ZnO nanoparticles using jujube fruit extract and their application in photocatalytic degradation of organic dyes" *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2020, 229, 117961.

Moones Honarmand, Morteza Golmohammadi, Atena Naeimi "Green synthesis of SnO₂-bentonite nanocomposites for the efficient photodegradation of methylene blue and eriochrome black-T" *Materials Chemistry and Physics*, 2020, 241, 122416.

Moones Honarmand, Andromachi Tzani, Anastasia Detsi "Synthesis of novel multi-OH functionalized ionic liquid and its application as dual catalyst-solvent for the one-pot synthesis 4H-pyrans" *Journal of Molecular Liquids*, 2019, 290, 111358.

Moones Honarmand, Morteza Golmohammadi, Atena Naeimi "Biosynthesis of tin oxide (SnO₂) nanoparticles using jujube fruit for photocatalytic degradation of organic dyes" *Advanced Powder Technology*, 2019, 30 (8), 1551-1557.

Atena Naeimi, **Moones Honarmand**, Naime Salandari "First biomimetic electrospun polymer from *Carthamus tinctorius* plant for sustainable synthesis of bis (1H-indol-3-

yl)methanes" *Polymer*, 2018, 159, 181-190.

Moones Honarmand, Andromachi Tzani, Anastasia Detsi "2-Hydroxyethyl-1-ammonium 3-hydroxypropane-1-sulfonate: a biodegradable and recyclable ionic liquid for the one-pot synthesis of 2-amino-3-cyano-4H-pyran" *Journal of the Iranian Chemical Society*, 2019, 16, 571-581.

Atena Naeimi, **Moones Honarmand**, Asmaa Sedri " Ultrasonic assisted fabrication of first MoO₃/copper complex bionanocomposite based on Sesbania sesban plant for green oxidation of alcohols, *Ultrasonics-Sonochemistry*, 2019, 50, 331-338.

Atena Naeimi, **Moones Honarmand**, Omid Jawhid " Iron porphyrin supported on natural cellulose polymer extracting from Sesbania sesban plant: a novel eco-friendly and cost-effective catalyst for green oxidation of organic compounds in water" *Cellulose Chemistry and Technology*, 2018, 52 (5-6), 343-351.

Moones Honarmand, Mohammad Givzad "An efficient and eco-friendly process for the Knoevenagel reaction using nano organosalt catalyst" *International Journal of Environmental Science and Technology*, 2018, 15(7), 1551-1560.

Moones Honarmand "Green synthesis of a nano salt and its application as multifunctional organocatalyst for Knoevenagel condensation" *Research on Chemical Intermediates*, 2017, 43(11), 6421-6432.

Moones Honarmand, Atena Naeimi, Mahboobeh Zahedifar "Nano ammonium salt: A novel and recyclable organocatalyst for one-pot, three-component synthesis of 2-amino-3-cyano-4H-pyran derivatives" *Journal of the Iranian Chemical Society*, 2017, 14(9), 1875-1888.

Moones Honamand, Elaheh Esmaceli "Tris(hydroxymethyl)methane ammonium hydrogensulphate as a nano ionic liquid and its catalytic activity in the synthesis of bis(indolyl)methanes" *Journal of Molecular Liquids*, 2017, 225, 741-749.

Sara Sobhani, Zahra Mesbah Falatoni, Solmaz Asadi, **Moones Honarmand** " Palladium-Schiff base complex immobilized covalently on magnetic nanoparticles as an efficient and recyclable catalyst for Heck and Suzuki cross-coupling reactions" *Catalysis letters*, 2016, 146, 255-268.

Sara Sobhani, Zahra Mesbah Falatoni, **Moones Honarmand** " Synthesis of phosphoric acid supported on magnetic core-shell nanoparticles: a novel recyclable heterogeneous catalyst for Kabachnik-Fields reaction in water" *RSC Advances*, 2014, 4, 15797-15806.

Sara Sobhani, Maryam Sadat Ghasemzadeh, **Moones Honarmand**, Farzaneh Zarifi "Acetamide-palladium complex immobilized on γ -Fe₂O₃ nanoparticles: a novel magnetically separable catalyst for Heck and Suzuki coupling Reactions" *RSC Advances*, 2014, 4, 44166-44174.

Sara Sobhani, Maryam Sadat Ghasemzadeh, **Moones Honarmand** " Piperidine and Piperazine Immobilized on Iron Oxide Nanoparticles as Magnetically Recyclable Heterogeneous Catalysts for One-Pot Synthesis of b-Phosphonomalonates" *Catalysis*

letters, 2014, 144, 1515-1523.

Sara Sobhani, **Moones Honarmand** " Ionic liquid immobilized on γ -Fe₂O₃ nanoparticles: A new magnetically recyclable heterogeneous catalyst for one-pot three-component synthesis of 2-amino-3,5-dicarbonitrile-6-thio-pyridines" *Applied catalysis A: General*, 2013, 467, 456-462.

Sara Sobhani, **Moones Honarmand** " Silica-Bonded 2-Hydroxyethylammonium Acetate as an Efficient and Recyclable Catalyst for the Synthesis of 2-Amino-4H-chromen-4-yl Phosphonates and β -Phosphonomalonates " *Catalysis letters*, 2013, 143, 476-485.

Sara Sobhani, **Moones Honarmand** " A Simple and Efficient Method for One-Pot Three-Component Synthesis of Terminal Vinylphosphonates Using a Task-Specific Ionic Liquid " *Synlett*, 2013, 24, 236-240.

Sara Sobhani, **Moones Honarmand** " 2-Hydroxyethylammonium acetate: A reusable task-specific ionic liquid promoted one-pot, three-component synthesis of 2-amino-3,5-dicarbonitrile-6-thio-pyridines " *Comptes Rendus Chimie*, 2013, 16 (3), 279-286.

Sara Sobhani, Razieh Nasser, **Moones Honarmand** "2-Hydroxyethylammonium acetate as a reusable and cost-effective ionic liquid for the efficient synthesis of bis(pyrazolyl)methanes and 2-pyrazolyl-1-nitroalkanes" *Canadian Journal of Chemistry*, 2012, 90, 798-804.

Sara Sobhani, **Moones Honarmand** "5-Hydroxypentylammonium Acetate as a Reusable Ionic Liquid Catalyzes Tandem Knoevenagel-Phospha-Michael Reaction of Aldehydes, Malononitrile and Phosphites" *Journal of the Iranian Chemical Society*, 2012, 9, 661-669.

Hamid Reza Shaterian, **Moones Honarmand** "Task-Specific Ionic Liquid as the Recyclable Catalyst for the Rapid and Green Synthesis of Dihydropyrano[3,2-c]chromene Derivatives" *Synthetic Communications*, 2011, 41, 3573-3581.

Hamid Reza Shaterian, Ali Reza Oveisi, **Moones Honarmand** "Synthesis of 2,3-Dihydroquinazoline-4(1H)-ones" *Synthetic Communications*, 2010, 40, 1231-1242.

Hamid Reza Shaterian, **Moones Honarmand**; Ali Reza Oveisi "Multicomponent synthesis of 3,5-diaryl-2,6-dicyanoanilines under thermal solvent-free conditions" *Monatshefte für Chemie*, 2010, 141, 557-560.

Hamid Reza Shaterian, **Moones Honarmand** "Uncatalyzed, One-pot Synthesis of 3,3'-(Benzylene)- bis(4-hydroxy-2H-chromen-2-one) Derivatives under Thermal Solvent-free Conditions" *Chinese Journal of Chemistry*, 2009, 27, 1795-1800.

Seminars and Conferences

Moones Honarmand, Atena Naeimi "The photodegradation of organic dyes using SnO₂/ZnO/eggshell nanocomposites " 1st International Conference & 4th National Conference on Materials, Metallurgy, Mining, Shahid Chamran University of Ahvaz, 2021.

Atena Naeimi, Majid Nayeb Esfahani, **Moones Honarmand** " Green synthesis of copper oxide (CuO) nanoparticles using *Spinacia oleracea*" 1st International Conference & 4th National Conference on Materials, Metallurgy, Mining, Shahid Chamran University of Ahvaz, 2021.

Moones Honarmand, Iraj Ghaedia, Atena Naeimi "Rosmarinus officinalis L. extract assisted green synthesis of CuO nanoparticles" 8th International E-congress on Nanosciences and Nanotechnology, Mashhad University of Medical Sciences, 2021.

Atena naeimi, **Moones Honarmand** "*Biosynthesis of gold (Au) nanoparticles using aqueous extract of teucrium polium*" 8th International E-congress on Nanosciences and Nanotechnology, Mashhad University of Medical Sciences, 2021.

Atena Naeimi, **Moones Honarmand** "*Phytosynthesis and characterization of MoO₃ bio-nanoparticles and MoO₃/Ag nanotube using natural plant*" 7th National Congress of Chemistry and Chemical Engineering with Emphasis on Native Iranian Technology, Tehran, 2020.

Moones Honarmand, Anastasia Detsi "*Three-component process for the synthesis of 4H-pyrans using a recyclable ionic liquid in aqueous media*" 26th Iranian Seminar of Organic Chemistry, University of Zabol, 2019.

Moones Honarmand "*Synthesis and characterization of 3-aminopropylammonium hydrogensulfate as a nano aliphatic quaternary ammonium salt*" 26th Iranian Seminar of Organic Chemistry, University of Zabol, 2019.

Moones Honarmand, Javad Hafezi-bakhtiari, Morteza Golmohammadi "*Biosynthesis of NiO nanoparticles using aqueous extract of oak fruit*" The 16th Iranian National Congress of Chemical Engineering, Amirkabir University of Technology, 2019.

Morteza Golmohammadi, **Moones Honarmand** "*Green Synthesis of Zinc nanoparticles using jujube fruit extract and their application for organic dye removal*" The 16th Iranian National Congress of Chemical Engineering, Amirkabir University of Technology, 2019.

Moones Honarmand, Morteza Golmohammadi "*Design and preparation of 1,2-ethanediammonium 3-hydroxypropane-1-sulfonate [(EDA)(HPS)] as a novel nano organocatalyst for three-component synthesis of 4H-pyrans*" The 10th International Chemical Engineering Congress & Exhibition, University of Isfahan, 2018.

Reza Shirmehenji, Sepideh Javanshir, **Moones Honarmand** "*Comparing Green Synthesis and Conventional Methods for the Synthesis of Selenium Nanoparticles*" 38th National Geosciences Congress, Earth Sciences Research Institute, 2019

Moones Honarmand, Morteza Golmohammadi "*A basic and recyclable ionic liquid for the*

efficient synthesis of 1,8-dioxo-octahydroxanthenes" 3rd Iranian Seminar of Applied Chemistry, Bu-Ali Sina University, 2018.

Moones Honrmand, Morteza Golmohammadi "*Three-component synthesis of 4H-pyran derivatives in the presence of immobilized ionic liquid on silica gel*" 3rd Iranian Seminar of Applied Chemistry, Bu-Ali Sina University, 2018.

Morteza Golmohammadi, **Moones Honrmand** "*Green Synthesis of Tin Oxide Nanoparticles using Narcissus Tazetta Leaf Extract*" 3rd Iranian Seminar of Applied Chemistry, Bu-Ali Sina University, 2018.

Moones Honarmand, Mehdi Shakourian-Fard "*1,3-Propanediaminium methanesulfonate [(PDA)(MS)]: A new nano molten salt catalyst for the efficient synthesis of bis(indolyl)methanes*" 2nd Iranian Seminar of Applied Chemistry, Zanzan University, 2017.

Moones Honarmand, Mehdi Shakourian-Fard "*A simple and green procedure for Knoevenagel condensation reaction using a new ammonium-based ionic liquid*" 2nd Iranian Seminar of Applied Chemistry, Zanzan University, 2017.

Moones Honarmand, Morteza Golmohammadi "*Design and preparation of 1,2-ethanediammonium 3-hydroxypropane-1-sulfonate [(EDA)(HPS)] as a novel nano organocatalyst for three-component synthesis of 4H-pyrans*" 10th International Chemical Engineering Congress & Exhibition, University of Isfahan, 2018.

Moones Honarmand, Mehdi Shakourian-Fard "*An eco-friendly process for the one-pot synthesis of 2-amino-3-cyano-4H-pyrans in the presence of nano ionic liquid*" 2nd National Conference of Green Engineering and Technologies for a Sustainable Future, Amirkabir University of Technology, 2017.

Moones Honarmand, Hossein Karami "*Preparation, characterization and application of a green molten salt catalyst for the synthesis of bis(indolyl)methanes*" 2nd National Conference of Green Engineering and Technologies for a Sustainable Future, Amirkabir University of Technology, 2017.

Mehdi Shakourian-Fard, Ahmad Bayat, **Moones Honarmand** "*Synthesis of a molybdate-based catalyst for green oxidation of organic halides aldehydes and ketones*" 2nd National Conference of Green Engineering and Technologies for a Sustainable Future, Amirkabir University of Technology, 2017.

Mehdi Shakourian-Fard, Ahmad Bayat, **Moones Honarmand** "*Oxidation of alcohols by iron oxide magnetic nanoparticles coated with silver nanoparticles*" 8th National Conference on chemistry and Environment, Kharazmi University, 2017.

Mehdi Shakourian-Fard, **Moones Honarmand**, A. Bayat "*Adsorption of organic molecules on the graphene surfaces containing double-vacancy (5-8-5) and stone-wales (55-77) defects: Application in graphene based gas sensors*" 8th National Conference on chemistry and Environment, Kharazmi University, 2017.

Moones Honarmand, Mehdi Shakourian-Fard, Ahmad Bayat "*Design, synthesis and catalytic property evaluation of a nano ammonium salt*" 25th Iranian Seminar of Organic

Chemistry, Iran University of Science and Technology, 2017.

Moones Honarmand, Mehdi Shakourian-Farda, Ahmad Bayat "Synthesis of bis(indolyl)methanes catalyzed by the first nano aliphatic ammonium-based ionic liquid" 25th Iranian Seminar of Organic Chemistry, Iran University of Science and Technology, 2017.

Mehdi Shakourian-Fard, **Moones Honarmand**, Ahmad Bayat "DFT Study of Adsorption of Ionic Liquids on the Defective Graphene Nanoflakes" 25th Iranian Seminar of Organic Chemistry, Iran University of Science and Technology, 2017.

Mehdi Shakourian-Fard, **Moones Honarmand**, A. Bayat "Trends in Physisorption of DNA Nucleobases on the Defective Hexagonal Boron Nitride Nanoflakes: A DFT Study" 25th Iranian Seminar of Organic Chemistry, Iran University of Science and Technology, 2017.

Moones Honarmand, Mehdi Shakourian-Fard "Tris(hydroxymethyl)methane Ammonium Hydrogensulphate [(THA)(HSO₄)]: An Eco-friendly and Recyclable Catalyst for One-Pot, Three-Component Synthesis of 2-Amino-3-cyano-4H-pyran Derivatives in Water" 24th Iranian Organic Chemistry Seminar, Azarbaijan Shahid Madani University, 2016.

Moones Honarmand, Mehdi Shakourian-Fard "Efficient and Eco-Friendly Process for the Synthesis of Bis(1H-indol-3-yl)methanes Using Butylammonium Hydrogen Sulphate as an Ionic Liquid" 24th Iranian Organic Chemistry Seminar, Azarbaijan Shahid Madani University, 2016.

Moones Honarmand "Novel Ionic Liquid as an Efficient and Recyclable Catalyst for the Knoevenagel Reaction in Water" 1st Iranian Applied Chemistry Seminar, University of Tabriz, 2016.

Moones Honarmand "Design, Synthesis and Characterization of Tris(hydroxymethyl)methane ammonium hydrogensulphate [(THA)(HSO₄)] as a Green and New Catalyst for the Henry Reaction" 1st Iranian Applied Chemistry Seminar, University of Tabriz, 2016.

Mehdi Shakourian-Fard, **Moones Honarmand**, "Evaluating the Ion-Electrolyte Solvation Free Energy and Electronic Structure Properties of Lithium-Ion Battery Electrolytes" 19th Iranian Physical Chemistry Conference, University of Guilan, 2016.

Sara Sobhani, **Moones Honarmand**, "One-pot, multicomponent synthesis of highly substituted pyridines by using task-specific ionic liquid" 18th Iranian Seminar of Organic Chemistry, University of Sistan and Baluchestan, 2012.

Sara Sobhani, **Moones Honarmand**, "Task-Specific Ionic liquid as a Recyclable Catalyst for the Efficient Synthesis of β -Phosphonomalonates", 15th Iranian Chemistry Congress, Bu-Ali Sina University, 2011.

Sara Sobhani, **Moones Honarmand**, "Efficient Synthesis of 2-Amino-4H-Chromene Substituted with Phosphonic Acid Dialkyl Esters Catalyzed by Silica-Supported Ionic Liquid" 15th Iranian Chemistry Congress, Bu-Ali Sina University, 2011.

Sara Sobhani, **Moones Honarmand**, "Task-specific ionic liquid as the recyclable catalyst

for the efficient synthesis of (2-amino-3-cyano-4H-chromene-4-yl) phosphonic acid dialkyl esters derivatives', 17th Iranian Seminar of Organic Chemistry, University of Mazandaran, 2010.

Hamid Reza Shaterian, **Moones Honarmand**, "Uncatalyzed, One-pot Synthesis of 3,3'-(Benzylene)- bis(4-hydroxy-2H-chromen-2-one) Derivatives under Thermal Solvent-free Conditions", 16th Iranian Conference of Organic Chemistry, Zanjan University, 2009.

Hamid Reza Shaterian, **Moones Honarmand**, "Magnesium hydrogensulfate [Mg(HSO₄)₂] as an efficient catalyst for the preparation of silyl ethers, dibenzo[a,j] xanthenes and octahydroxanthene derivatives", 16th Iranian Conference of Organic Chemistry, Zanjan University, 2009.

Hamid Reza Shaterian, Asghar Hosseinain, **Moones Honarmand**, Fahimeh Khorami, "Ferric Hydrogensulfate as Efficient Heterogeneous Catalyst for Environmentally Friendly Greener Synthesis of 1,8-DioxoOctahydroxanthenes", 15th Iranian Seminar of Organic Chemistry, Razi University Kermanshah, 2008.

Research projects

The synthesis of organic compounds via multi-component reaction in the presence of a new ionic liquid, Birjand University of Technology, April 2015- September 2016.

Synthesis, characterization and catalytic application of a novel nano salt, Birjand University of Technology, December 2016- September 2017.

Biodegradable aliphatic ionic liquids: Design, synthesis and catalytic property evaluation, Iran National Science Foundation (INSF), September 2017- February 2019.

Reviewer in Journals

Bioorganic Chemistry (ISSN: 0045-2068), Elsevier

Current Organic Chemistry (ISSN: 1875-6271), Bentham Science

Tetrahedron (ISSN: 0040-4020), Elsevier.

Journal of the Iranian Chemical Society (ISSN: 1735-2428), Springer

Main Group Chemistry (ISSN: 1745-1167), Taylor & Francis

Journal of Physics and Chemistry of Solids (ISSN: 0022-3697), Elsevier

Journal of Mining and Environment (ISSN:2251-8606)

International Journal of Nano Dimension (ISSN: 2228-5059)

Iranian Journal of Chemistry and Chemical Engineering (ISSN: 1021-9986)

Journal of Fashion Technology & Textile Engineering (ISSN: 2329-9568)

Materials Technology Advanced Performance Materials, (ISSN: 1066-7857), Taylor & Francis

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