



## Resume



دانشگاه شیراز  
SHIRAZ UNIVERSITY  
OF TECHNOLOGY

First name: Reza

Last name: Khalifeh

Academic title: Professor

Area of Specialty: Organic Chemistry

Areas of Interest: Design and synthesis of nano catalyst, Design and synthesis of organic compounds, Drug delivery, Design and synthesis of hollow spheres

Projects & Research Activities:

1. Study and investigation of synthetic methods of Uranine tracer material
2. Acquiring and developing technical knowledge of TEGDMA production on a laboratory scale
3. CO<sub>2</sub> adsorption and conversion to valuable cyclic carbonate compounds using ionic liquids and hollow nanostructures

## Selected publication

1. “Highly Selective and Sensitive Membrane Sensors for Copper(II) Ion Based on a New Benzo-Substituted Macrocyclic Diamide 6,7,8,9,10-Hexahydro-2H-1,13,4,7,10-benzodioxatriazacyclopentadecine- 3,11(4H,12H)-dione” Mojtaba Shamsipur, Farhang Mizani, Ali Akbar Saboury, Hashem Sharghi and **Reza Khalifeh** *Electroanalysis* **2007**, 19, 587.
2. “Synthesis of Some Novel Thioxanthenone-Fused Azacrown Ethers, and Their Use as New Catalysts in the Efficient, Mild, and Regioselective Conversion of Epoxides to  $\beta$ -Hydroxy Thiocyanates with Ammonium Thiocyanate” Hashem Sharghi, Alireza Salimi Beni and **Reza Khalifeh** *Helvetica Chimica Acta* **2007**, 90, 1373.
3. “A solvent-free protocol for facile condensation of indoles with carbonyl compounds using silica chloride as a new, highly efficient, and mild catalyst” Alireza Hasaninejad, Abdolkarim Zare, Hashem Sharghi, Mohsen Shekouhy, **Reza Khalifeh**, Alireza Salimi Beni and Ahmad Reza Moosavi Zare *Can. J. Chem.* **2007**, 85, 416.
4. “Eco-Friendly Synthesis of Novel Lariat Ethers via Mannich Reaction under Solventless Conditions” Hashem Sharghi and **Reza Khalifeh** *HETEROCYCLES* **2007**, 71, 1601.
5. “A new one-pot procedure for the synthesis of 2-substituted benzimidazoles” Hashem Sharghi, Omid Asemani and **Reza Khalifeh** *Synth. Commun.* **2008**, 38, 1128.
6. “Reaction on a Solid Surface. A simple, Economical and Efficient Mannich Reaction of Aza Crown Ethers over Graphite” Hashem Sharghi and **Reza Khalifeh** *Can. J. Chem.* **2008**, 86, 426.
7. “Spectroscopic Studies of Charge-Transfer Complexation of Iodine with a New Benzo-Substituted Macrocyclic Diamide in Chloroform, Dichloromethane and

- their 1:1 Mixture” N. Alizadeh, M.A. Zanjanchi, H. Sharghi, **R. Khalifeh** and M. Shamsipur *J. Iran. Chem. Soc.* **2008**, 5, 610.
8. “An efficient and selective fluorescent optode membrane based on 7-[(5-chloro-8-hydroxy-7-quinoliny)methyl]-5,6,7,8,9,10-hexahydro-2*H*-1,13,4,7,10-benzodioxatriazacyclopentadecine-3,11(4*H*,12*H*)-dione as a novel fluoroionophore for determination of cobalt(II) ions” Mojtaba Shamsipur, Marzieh Sadeghi, Kamal Alizadeh, Hashem Sharghi, **Reza Khalifeh** *Anal. Chim. Acta* **2008**, 630, 57.
  9. “PCl<sub>5</sub> as a Mild and Efficient Catalyst for the Synthesis of Bis(indolyl)methanes and Di-bis(indolyl)methanes” A. R. Hasaninejad, A. Zare, H. Sharghi, **R. Khalifeh**, A. R. Moosavi Zare *Bull. Chem. Soc. Ethiop.* **2008**, 22, 453-458.
  10. “Silica-Supported LiHSO<sub>4</sub> as a Highly Efficient, Mild, Heterogeneous, and Reusable Catalytic System for the Solvent-Free Synthesis of Bis(indolyl)methanes” Alireza Hasaninejad, Abdolkarim Zare, Hashem Sharghi, **Reza Khalifeh**, Mohsen Shekouhy *Phosphorus, Sulfur, and Silicon* **2009**, 184, 2508-2515.
  11. “Copper Nanoparticles on Charcoal for Multicomponent Catalytic Synthesis of 1,2,3 Triazole derivatives from Benzyl halides or Alkyl halides, Terminal Alkynes and Sodium azide in Water as a “Green” Solvent” Hashem Sharghi, Reza Khalifeh and Mohammad Mahdi Doroodmand *Adv. Synth. Catal.* **2009**, 351, 207.
  12. “Immobilization of Porphyrinatocopper Nanoparticles onto Activated Multi-Walled Carbon Nanotubes and a Study of its Catalytic Activity as an Efficient Heterogeneous Catalyst for a Click Approach to the Three-Component Synthesis of 1,2,3-Triazoles in Water” Hashem Sharghi, Mohammad Hassan Beyzavi, Afsaneh Safavi, Mohammad Mahdi Doroodmand, **Reza Khalifeh** *Adv. Synth. Catal.* **2009**, 351, 2391.
  13. “Selective homogeneous liquid-liquid extraction and preconcentration of copper(II) into a micro droplet using a benzo-substituted macrocyclic diamide, and its determination by electrothermal atomic absorption spectrometry” Kamal

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14. "Synthesis of New Lariat Ethers Containing Polycyclic Phenols and Heterocyclic Aromatic Compound on Graphite Surface *via* Mannich Reaction" H. Sharghi, **R. Khalifeh**, A. R. Salimi Beni *J. Iranian Chem. Soc.* **2010**, 7, 275.
  15. "One-pot, Three-Component Synthesis of 1-(2-Hydroxyethyl)-1*H*-1,2,3-triazole Derivatives by Copper-Catalyzed 1,3-Dipolar Cycloaddition of 2-Azido Alcohols and Terminal Alkynes under Mild Conditions in Water" Hashem Sharghi, Mona Hosseini-Sarvari, Fatemeh Moeini, **Reza Khalifeh**, Alireza Salimi Beni *Helv. Chim. Acta* **2010**, 93, 435.
  16. "Catalytic Friedel–Crafts Acylation and Benzoylation of Aromatic Compounds Using Activated Hematite as a Novel Heterogeneous Catalyst" Hashem Sharghi, Mahboubeh Jokar, Mohammad Mahdi Doroodmand, **Reza Khalifeh** *Adv. Syn. Cat.* **2010**, 352, 3031.
  17. "Carbon nanotube composite coated platinum electrode for detection of Ga(III) " A. Abbaspour,, Seyyed Mehdi Khoshfetrat, H. Sharghi, **R. Khalifeh** *J. Hazard. Mater.* **2011**, 185, 101.
  18. "Mannich reaction of secondary amines, aldehyde and alkyne in water as a "Green" solvent by Cu/C nanoparticles as heterogeneous catalyst" Hashem Sharghi, **Reza Khalifeh**, Fatemeh Moeini, Mohammad Hassan Beyzavi, Alireza Salimi Beni, Mohammad Mahdi Doroodmand *J. Iranian Chem. Soc.* **2011**, 8, S89.
  19. "Melamine–formaldehyde resin supported H<sup>+</sup> a mild and inexpensive reagent for synthesis of coumarins under mild conditions" Ramin Rezaei, Leila Dorosty, Maryam Rajabzadeh, **Reza Khalifeh** *Chinese Chem. Lett.* **2011**, 22, 1313.
  20. "Simple, Efficient, and Applicable Route for Synthesis of 2-Aryl(Heteroaryl)-Benzimidazoles at Room Temperature Using Copper Nanoparticles on Activated Carbon as a Reusable Heterogeneous Catalyst" Hashem Sharghi, **Reza Khalifeh**, Seyed Gholamhossein Mansouri, Mahdi Aberi, Mohammad Mehdi Eskandari *Catal. Lett.* **2011**, 141, 1845.

21. "Three-component synthesis of propargylamine derivatives via 1,4-dihydroxyanthraquinone-copper(II) complexes as an efficient catalyst under solvent-free conditions" H. Sharghi, A. Khoshnood, **R. Khalifeh** *Iran. J. Sci. Tech.* **2012**, *A1*, 25.
22. "1,4-Dihydroxyanthraquinone-copper(II) nanoparticles immobilized on silica gel: a highly efficient, copper scavenger and recyclable heterogeneous nanocatalyst for a click approach to the three-component synthesis of 1,2,3-triazole derivatives in water" Hashem Sharghi, Abbas Khoshnood, Mohammad Mahdi Doroodmand, **Reza Khalifeh** *JICS* **2012**, *9*, 231.
23. "Synthesis of novel  $\beta$ -lactams bearing an anthraquinone moiety, and evaluation of their antimalarial activities" Aliasghar Jarrahpour, Edris Ebrahimi, **Reza Khalifeh**, Hashem Sharghi, Mohammad Sahraei, Veronique Sinou, Christine Latour, Jean Michel Brunel *Tetrahedron* **2012**, *68*, 4740.
24. "Fe<sub>3</sub>O<sub>4</sub> Nanoparticles as an Efficient and Magnetically Recoverable Catalyst for Friedel–Crafts Acylation Reaction in Solvent-Free Conditions" S. Jafar Hoseini, Hasan Nasrabadi, Mahboobeh Azizi, Alireza Salimi Beni, **Reza Khalifeh** *Synthetic Commun.* **2013**, *43*, 1683.
25. "Melamine-formaldehyde resin supported H<sup>+</sup>-catalyzed three-component synthesis of 1,8-dioxo-decahydroacridine derivatives in water and under solvent-free condition" Ramin Rezaei, **Reza Khalifeh**, Maryam Rajabzadeh, Liela Dorosty, Mohammad Mahdi Doroodmand *Heterocycl. Commun.* **2013**, *19*, 57.
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27. "Synthesis of [Zn(II)BHPPDAH] as New Heterogeneous Catalyst without Being Immobilized on Any Support and Applied for Mannich Reaction" **Reza Khalifeh**, Hashem Sharghi, and Zahra Rashidi *Heteroatom Chem.* **2013**, *24*, 372.
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- conditions using PEG 300 as green solvent” Hashem Sharghi, **Reza Khalifeh**, Zahra Rashidi *Mol. Divers.* **2013**, *17*, 721.
29. “Coated Wire Ion Selective Electrode Based on a New Crown Ether for Determination of Fe<sup>2+</sup>” Ghodratollah Absalan, Maryam Arabi, **Reza Khalifeh**, Hashem Sharghi, and Javad Tashkhourian *IEEE SENSORS J.* **2014**, *14*, 349.
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33. “Rapid, Eco-friendly, and One-pot Synthesis of New Lariat Ethers Based on Anthraquinone by Using ZnO Nanoparticles via “Mannich” Reaction under Solvent-free Condition” H. Sharghi, A. Khoshnood, M. M. Doroodmand, **R. Khalifeh** *J. Heterocycl. Chem.* **2016**, *53*, 164.
34. “A Multicomponent Synthesis of 2-Amino-3-cyanopyridine Derivatives Catalyzed by Heterogeneous and Recyclable Copper Nanoparticles on Charcoal” **Reza Khalifeh**, Mahdiyeh Ghamari *J. Braz. Chem. Soc.* **2016**, *27*, 759.
35. “Generation of Cu nanoparticles on novel designed Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>/EP.EN.EG as reusable nanocatalyst for the reduction of nitro compounds” Maryam Rajabzadeh, Hossein Eshghi, **Reza Khalifeh**, Mehdi Bakavoli *RSC Adv.* **2016**, *6*, 19331.
36. “Carbon Nanotube-Supported Butyl 1-Sulfonic Acid Groups as a Novel and Environmentally Compatible Catalyst for the Synthesis of 1,8-Dioxo-

- octahydroxanthenes” Keveh Parvanak Boroujeni, Zahra Heidari, **Reza Khalifeh** *Acta Chim. Slov.* **2016**, *63*, 602.
37. “Magnetically recoverable copper nanorods and their catalytic activity in Ullmann cross-coupling reaction” Maryam Rajabzadeh, Hossein Eshghi, **Reza Khalifeh**, Mehdi Bakavoli *Appl. Organomet. Chem.* **2017**, *31*, e3647.
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41. “A facile hydrothermal synthesis of novel hollow triple-shelled CuNiFe<sub>2</sub>O<sub>4</sub> nanospheres with robust catalytic performance in the Suzuki-Miyaura coupling reaction” Maryam Rajabzadeh, **Reza Khalifeh**, Hossein Eshghi, Mehdi Bakavoli *J. Catal.* **2018**, *360*, 261.
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45. "Design and synthesis of Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>/aza-crown ether-Cu(II) as a novel and highly efficient magnetic nanocomposite catalyst for the synthesis of 1,2,3-triazoles, 1-substituted 1*H*-tetrazoles and 5-substituted 1*H*-tetrazoles in green solvents" Fahimeh Rezaei, MohammadAli Amrollahi and **Reza Khalifeh** *Inorg. Chim. Acta* **2019**, *489*, 8.
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75. "Water-soluble ZnO quantum dots modified by polyglycerol: The pH-sensitive and targeted fluorescent probe for delivery of an anticancer drug" Zahra Sobhani, **Reza Khalifeh**, Mina Banizamani, Maryam Rajabzadeh *J. Drug Deliv. Sci. Technol.* **2022**, *76*, 103452.

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