



## ***Mehdi Sheikh Arabi***

**PhD in Organic Chemistry**

**Surname:** Sheikh Arabi

**Given Name:** Mehdi

**Date of Birth:** September, 16, 1978

**Marital status:** Married

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### **Academic Background**

**Ph. D.** From 2011 to present      Organic Chemistry, [Razi University](#), Kermanshah, Iran

Supervisor:                      Dr. Kiumars Bahrami

Thesis: *“Synthesis and Characterization Recoverable Nanocatalysts using Fe<sub>3</sub>O<sub>4</sub> Magnetic Nanoparticles, Mesoporous SBA-15, Carbon Nanotubes and Boehmite Nanoparticles as Supports for the Green Synthesis of Organic and Pharmaceutical Compounds and Design Strategy to Prepare of Nanosupports for the Application in Drug Delivery Systems”*

**M. Sc.**                      2010                      Organic Chemistry, [Razi University](#), Kermanshah, Iran

Supervisor(s): Prof. Mohammad Mahdi Khodaei and Dr. Kiumars Bahrami

Thesis: "*Application of H<sub>2</sub>O<sub>2</sub>-Lewis acid in organic synthesis*"

**B. Sc.** 2006 Chemistry, [Payame Noor University](#), Behshahr, Iran

### **Academic and Research Experience**

Laboratory Officer Faculty of Pharmacy, Tehran University of Medical Sciences,  
Tehran, Iran. 2010-2011

### **Honors and Awards**

Premier's Research and Technology Excellence Award for Graduate Students, Faculty of  
Chemistry, Razi University, 2010

Dissertation for M.Sc. program evaluated as "Excellent" by the referee committee (with a mark  
of 20 out of 20).

### **Full command of the following software:**

1. M.S. Office Group: Word, Excel, PowerPoint
2. Chem Draw, Chem Office
3. Expert in Research tools (Internet search etc.).

### **Research Interests:**

1. Functionalized of gold Nanoparticles as a Nano sensor
2. Organic Reactions of Monolayer-Protected Metal Nanoparticles

3. Synthesis and Study of Gold & Silver Nanoparticles
4. Nanocatalyst
5. Heterogeneous Catalysis
6. Green Chemistry
7. Functionalized of nonmagnetic of Fe<sub>3</sub>O<sub>4</sub> as catalyst
8. Synthesis and Functionalized of Fe<sub>3</sub>O<sub>4</sub> @ Au and Fe<sub>3</sub>O<sub>4</sub> @ Ag as a Nano sensor
9. Nano drug delivery systems for chemotherapy, dignoising and imaging cancers (polymeric and inorganic Nano carriers)

### **Refereed Publications:**

#### **Articles:**

1. Mohammad M. Khodaei; Kiumars Bahrami; **Mehdi Sheikh Arabi**” Oxidation of sulfides to sulfoxides with H<sub>2</sub>O<sub>2</sub>/HNO<sub>3</sub> reagent system” Department of Chemistry, Razi University, Kermanshah, Iran Nanoscience and Nanotechnology Research Center (NNRC), Razi University, Kermanshah, Iran, *Jou. Sulfur Chemistry*, Vol. 31, No. 2, April 2010, 83–8807, DOI: [10.1080/17415991003664763](https://doi.org/10.1080/17415991003664763)
2. Kiumars Bahrami; Mohammad M. Khodaei; **Mehdi Sheikh Arabi**” TAPC-Promoted Oxidation of Sulfides and Deoxygenation of Sulfoxides” Department of Chemistry, Razi University, Kermanshah, Iran Nanoscience and Nanotechnology Research Center (NNRC), Razi University, Kermanshah, Iran, *J. Org. Chem.* 2010, 75, 6208–6213, DOI: [10.1021/jo1011784](https://doi.org/10.1021/jo1011784)
3. Kiumars Bahrami; Mohammad M. Khodaei; Behrooz H. Yousefi; **Mehdi Sheikh Arabi**” TMSCl-promoted selective oxidation of sulfides to sulfoxides with hydrogen peroxide” Department of Chemistry, Razi University, Kermanshah, Iran . *Tetrahedron Letters* 51, 2010, 6939–6941 DOI: [10.1016/j.tetlet.2010.10.171](https://doi.org/10.1016/j.tetlet.2010.10.171)
4. Kiumars Bahrami; Mohammad M. Khodaei; Homa Targhan; **Mehdi Sheikh Arabi**” Preparation of esters and amides from carboxylic acids and N-formylation of amines promoted by 1,3,5-triazo-2,4,6- triphosphorine-2,2,4,4,6,6-hexachloride (TAPC)” Department of Chemistry, Razi University, Kermanshah, Iran , *Tetrahedron Letters* 54 ,2013, 5064–5068 DOI: [10.1016/j.tetlet.2013.07.033](https://doi.org/10.1016/j.tetlet.2013.07.033)
5. Mohammad Ali Taher, Changiz Karami, **Mehdi Sheikh Arabi**, Hossein Ahmadian, Yasaman Karami” Efficient FeCl<sub>3</sub>/SiO<sub>2</sub> as heterogeneous nanocatalysis for the synthesis of benzimidazoles under mild conditions” Department of Chemistry, Razi University, Kermanshah, Iran , *International Nano Letters*, DOI: [10.1007/s40089-015-0167-2](https://doi.org/10.1007/s40089-015-0167-2)

### Conferences Presentations

1. **M. Sheikh Arabi**; K. Bahrami; M. M. Khodaei” Oxidation of sulfides to sulfoxides with H<sub>2</sub>O<sub>2</sub>-HNO<sub>3</sub> reagent system” 15<sup>th</sup> Iranian Seminar of Organic Chemistry, 18-20 August 2009, Zanzan University, Zanzan, Iran, , Poster presentation.
2. **M. Sheikh Arabi**; K. Bahrami; M. M. Khodaei” Oxidation of sulfides to sulfoxides with H<sub>2</sub>O<sub>2</sub>-TMSCl reagent system” 17<sup>th</sup> Iranian Seminar of Organic Chemistry, 13-15 October 2010, Mazanderan University, Babolsar, Iran, , Poster presentation.
3. K. Bahrami; M. M. Khodaei; **M. Sheikh Arabi**” H<sub>2</sub>O<sub>2</sub>-SOCl<sub>2</sub> As an efficient system for the oxidation of organonitrogen compounds” 17<sup>th</sup> Iranian Seminar of Organic Chemistry, 13-15 October 2010, Mazanderan University, Babolsar, Iran, , Poster presentation.
4. **Sheikh Arabi, Mehdi**; Bahrami, Kiumars” A Mild and Efficient Palladium-Catalyzed of benzo[e]-1,2,4-triazines by Reaction of 2-Haloanilines and Benzohydrazides” 16<sup>th</sup> Iranian Chemistry Congress Iran, 8-10 September 2013, Yazd University, Yazd, Iran, , Poster presentation.
5. **Sheikh Arabi, Mehdi**; Bahrami, Kiumars” Silica (NPs) supported Bi(NO<sub>3</sub>)<sub>3</sub>. 5H<sub>2</sub>O as a New and Efficient Catalyst for the One-Pot Green Synthesis of Benzimidazole Derivatives” 16<sup>th</sup> Iranian Chemistry Congress Iran, 8-10 September 2013, Yazd University, Yazd, Iran, , Poster presentation.
6. **Sheikh Arabi, Mehdi**; Bahrami, Kiumars, Changiz Karami” Silica (NPs) supported FeCl<sub>3</sub> as a New and Efficient Catalyst for the One-Pot Green Synthesis of Benzimidazole Derivatives” 1<sup>th</sup> Regional conference of Chemistry and Chemistry Engineering New Achievements, 28-29 October 2013, Islamic Azad universit, Kermanshah, Iran,, Poster presentation.
7. **Mehdi Sheikh Arabi**; Kiumars Bahrami” A Highly efficient and recyclable Fe<sub>3</sub>O<sub>4</sub> nano particle- supported Cu(II) Catalyst for synthesis 1,2,3- triazoles” 21<sup>th</sup> Iranian Seminar of Organic Chemistry, 13-15 March 2014, Ilam University, Ilam, Iran, , Poster presentation.

### Specialized Techniques

- ❖ Material Chemistry:
  - I) Application of Superparamagnetic Nanoparticles in Organic Chemistry and Nanomedicines
  - II) Synthesis, Characterization and Application of Organic-Inorganic Hybrid Nanomaterials
  - III) Synthesis, Characterization and Study of the Monolayer Protected Metal Nanoparticles (MPGN) and Self-Assembled Monolayer (SAM)
- ❖ Synthetic Organic Chemistry
- ❖ Heterogeneous Catalysts
- ❖ Experience with various nanomaterial characterization techniques i.e. Transmission Electron Microscopy (TEM), Thermo-Gravimetric Analysis (TGA), VSM, XRD, BET, NMR and other material characterization techniques.

***Teaching:***

1. Organic Chemistry
2. Application of Spectroscopy in Chemistry
3. Laboratory of General Chemistry (I, II)
4. Laboratory of Organic Chemistry (I, II)

**Patents**

1. Mehdi sheikharabi, Synthesis of organic solvent TB, Iran Patent system, (in press)

**Referees**

1. **Dr. Kiumars Bahrani**, Prof of Organic Chemistry, Department of Chemistry Nanoscience & Nanotechnology Research Center (NNRC), Razi University, Kermanshah, Iran. [kbahrani2@hotmail.com](mailto:kbahrani2@hotmail.com)
2. **Pro. Mohamad Mehdi Khodaei**, Prof of Organic Chemistry Department of Chemistry Nanoscience & Nanotechnology Research Center (NNRC), Razi University, Kermanshah, Iran. [mmkhoda@razi.ac.ir](mailto:mmkhoda@razi.ac.ir)
3. **Dr. Keivan Ghodrati**, Assistant of prof Department of Chemistry, Kermanshah Branch, Islamic Azad University, Kermanshah. Iran. [kghodrati@yahoo.com](mailto:kghodrati@yahoo.com)

