



Curriculum Vitae

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Education

-(2008) Ph.D. in Organic Chemistry, Department of Basic Science, University of Tarbiat Modares, Tehran, Iran.

-(2004) MSC in Organic Chemistry, Department of Chemistry, Sharif University of Technology, Tehran, Iran.

-(2002) BSC in Pure Chemistry, Department of Chemistry, Tabriz University, Tabriz, Iran.

Academic Career:

1)Teaching

(2010- Present), Department of Basic Science, School of Allied Medical Sciences, Darband St, Tajrish Sq, Tehran, Islamic Republic of Iran.

(2007-2008), Department of Basic Science, Islamic Azad University-Takestan Branch, Takestan, Iran.

(2007-2008), Department of Basic Science, Payame Noor University, Karaj, Iran.

2) Supervizing and/or Advising

Title of Thesis/dessertations	Degree/Level	Role	Year
Metabonomics study examples of different diseases: linear and non-linear models using nuclear magnetic resonance	Ph.D degree	Advisor	2013
Metabonomics study of serum blood for celiac patients based on Nuclear Magnetic Resonance	Ph.D degree	Supervisor	2014
NMR-Based metabolomic investigation into the metabolic profile of sulfur mustard exposed in different levels of lung diseases	Ph.D degree	Supervisor	2015

Publications:

1. Articles

1. Akram Safaei, Mostafa Rezaei Tavirani, **Afsaneh Arefi Oskouie**, Mona Zamanian Azodi, Seyed Reza Mohebbi, Abdol Rahim Nikzamir "Protein-protein interaction network analysis of cirrhosis liver disease", Gastroenterology and hepatology from bed to bench 2016, 9 (2).114-123.
2. B Fatemeh Nobakht, Rasoul Aliannejad, Mostafa Rezaei-Tavirani, **Afsaneh Arefi Oskouie***, Mohammad Taghi Naseri, Hadi Parastar, Ghazaleh Aliakbarzadeh, Fariba Fathi, Salman Taheri "NMR-and GC/MS-based metabolomics of sulfur mustard exposed individuals: a pilot study", Biomarkers, 2016,
3. Mostafa Rezaei-Tavirani B. Fatemeh Nobakht M. Gh., Rasoul Aliannejad, **Afsaneh Arefi Oskouie**, Fariba Fathi, Hossein Ali Safakhah. "Nuclear magnetic resonance -based metabolomics analysis of patients exposed to sulfur mustard in different stages using random forest method", Koomesh 2016.(17),3-701.
4. B Fatemeh Nobakht M. Gh, **Afsaneh Arefi Oskouie**, Rasoul Aliannejad, Mostafa Rezaei-Tavirani, Shima Tavallaie, Alireza Akbarzadeh Baghban, Salman Taheri, Mohammad Reza Keramati, Daryoush Hamidi Alamdari. "Pro-oxidant–antioxidant balance in Iranian veterans with sulfur mustard toxicity and different levels of pulmonary disorders", Drug and Chemical Toxicology, 2015,1-5.
5. **Afsaneh Arefi Oskouie***, Salman Taheri, Leila Mamani, Akbar Heydari."Thiourea-functionalized magnetic hydroxyapatite as a recyclable inorganic–organic hybrid nanocatalyst for conjugate hydrocyanation of chalcones with TMSCN", Catalysis Communications 2015 (72) 6-10.

6. **Afsaneh Arefi Oskouie**, B. Fatemeh Nobakht M. Gh., Rasoul Aliannejad, Salman Taheri, Mostafa Rezaei-Tavirani, Fariba Fathi "Serum metabolomic analysis of mustard airway diseases by nuclear magnetic resonance spectrometry: A pilot study", *European Respiratory Journal*, 2015(46),59, PA3925.
7. Rasoul Aliannejad Daryoush Hamidi Alamdari, B. Fatemeh Nobakht M. Gh., **Afsaneh Arefi Oskouie**, Mostafa Rezaei-Tavirani, Alireza Akbarzadeh Baghban ."Prooxidant-antioxidant balance in mustard airway disease with different severity", *European Respiratory Journal*, 2015(46), 59, PA3915
8. **Afsaneh Arefi Oskouie***, Salman Taheri, "Recent developments and application of metabolomics in cancer diseases", *Journal of Paramedical Sciences*, 2015,6(2), 116-135.
9. B Fatemeh Nobakht M. Gh, Rasoul Aliannejad, Mostafa Rezaei-Tavirani, Salman Taheri, **Afsaneh Arefi Oskouie***, "The metabolomics of airway diseases, including COPD, asthma and cystic fibrosis", *Biomarkers* 2015, 20 (1), 5-16.
10. Mona Zamanian-Azodi, Mostafa Rezaei-Tavirani, Tahereh Kermani-Ranjbar, **Afsaneh Arefi Oskouie** , Majid Rezaei-Tavirani, Sara RahmatiRad, Asl, N. S,"Pathophysiology, genetics, types, and treatments in obsessive compulsive disorder", *Koomesh*, 2015, 16 (4), 475-487.
11. Fariba Fathi, Laleh Majari Kasmaee, Ahmad Mani Varnosfaderani, Anahita Kyani, Mohammad Rostami Nejad, Kaveh Sohrabzadeh, Nosratollah Naderi, Mohammad Reza Zali, Mostafa Rezaei Tavirani, Mohsen Tafazzoli, **Afsaneh Arefi Oskouie*** , "¹H NMR based metabolic profiling in Crohn's disease by random forest methodology",2014, *Magnetic Resonance in Chemistry* 52 (7), 370-376.
12. Fariba Fathi, Laleh Majari Kasmaee, Kaveh Sohrabzadeh, Mohamad Rostami Nejad, Mohsen Tafazzoli, **Afsaneh Arefi Oskouie ***, The differential diagnosis of Crohn's disease and celiac disease using nuclear magnetic resonance spectroscopy,2014, *Applied Magnetic Resonance* 2014,45 (5), 451-459.
13. Fariba Fathi, Fatemeh Ektefa, Kaveh Sohrabzadeh, **Afsaneh Arefi-Oskouie**, Mohsen Tafazzoli, Kamran Rostami, Mohammad-Reza Zali, Mohammad Rostami-Nejad ."A Metabonomics Study on Celiac Disease by CART" *International Journal of Celiac Disease* 2014, 2 (2), 44-46.
14. Fariba Fathi, Masoud Mehrpour, **Afsaneh Arefi Oskouie**, Soraya Fathi, Kaveh Sohrabadeh, Mohammad Rostami Nejad. "The role of selenium in Parkinson's disease "[Article in Persian Barasie naghshhe Selenium dra bimarie Parkinson], *Research in Medicine*, 2013, 37,2, 90-92
15. Fariba Fathi, **Afsaneh Arefi Oskouie**, N Naderi, Zahra kariminia, Soraya Fathi, Fatemeh Ektefa, Majid Rezaei-Tavirani, Mohammad Rostami Nejad , shahin shahbazi. "Comparison of serum zinc concentrations in patients with celiac disease and Crohn's disease in Tehran city" [Article in Persian "Moghayese Ghelzat roy dar serum afrade mobtala be celiac va Crohn dar shahre Tehran"], *Scientific Journal of Ilam University of Medical Sciences* ,2013, 20 (4), 1-6

16. Fariba Fathi, **Afsaneh Arefi Oskouie**, Mohsen Tafazzoli, Nosratollah Naderi, Kaveh Sohrabzede, Soraya Fathi, Mohsen Norouzinia, Mohammad Rostami Nejad. "Metabonomics based NMR in Crohn's disease applying PLS-DA", Gastroenterology and Hepatology from bed to bench 2013,6 (Suppl 1), S82.
17. Fariba Fathi, Fatemeh Ektefa, **Afsaneh Arefi Oskouie**, Kamran Rostami, Mostafa Rezaei-Tavirani, Amir Houshang Mohammad Alizadeh, Mohsen Tafazzoli, Mohammad Rostami Nejad. "NMR based metabonomics study on celiac disease in the blood serum", Gastroenterology and Hepatology from bed to bench 2013, 6 (4), 190.
18. Fariba Fathi, Fatemeh Ektefa, Mohsen Tafazzoli, Kamran Rostami, Mohammad Rostami Nejad, Mohsen Fathi, Mostafa Rezaei-Tavirani, **Afsaneh Arefi Oskouie**, , Mohammad Reza Zali."The concentration of serum zinc in celiac patients compared to healthy subjects in Tehran", Gastroenterology and Hepatology from bed to bench, 2013,6(2), 92.
19. Seyed AbdolReza Mortazavi-Tabatabaei ,Fariba Fathi , Fatemeh Ektefa , Mohsen Tafazzoli, **Afsaneh Arefi Oskouie** *. "Investigation of metabonomics technique by analyze of NMR data, which method is better? Mean center or auto scale?" Journal of Paramedical Sciences 2012, 4 (1), 2-9.
20. Mostafa Rezaei-Tavirani , Fariba Fathi , Fatemeh Darvizeh , Mohamad Reza Zali ,Mohamad Rostami Nejad ,Kamran Rostami ,Mohsen Tafazzoli ; **Afsaneh Arefi Oskouie***, Seyed AbdolReza Mortazavi-Tabatabaei. "Advantage of applying OSC to ¹HNMR-based metabonomic data of celiac disease" , International Journal Endocrinology and Metabolism 2012, 10 (3), 548-552
21. Mina Ghiasi, **Afsaneh Arefi Oskouie**, Hamdollah Saeidian. "Dynamic stereochemistry of Topiramate (anticonvulsant drug) in solution: theoretical approaches and experimental validation", Carbohydrate research 2012(348) 47-54.
22. Fariba Fathi, Anahita Kyani, M Rostami Nejad, Mostafa Rezaye-Tavirani, Nosratollah Naderi, Mohamad Reza Zali, Mohsen Tafazzoli, **Afsaneh Arefi Oskouie**. "A metabonomics study on Crohn's Disease using Nuclear Magnetic Resonance spectroscopy", HealthMED2012, 6, 3577-84.
23. Akbar Heydari, **Afsaneh Arefi Oskouie**, Maryam Esfandyari,et all. Direct reductive amination of aldehydes and selective reduction of α , β -unsaturated carbonyl compounds by NaBH₄ in the presence of guanidine hydrochloride in water, Journal of Molecular Catalysis A: Chemical 2007, 274 (1), 169-172.
24. Akbar Heydari, **Afsaneh Arefi Oskouie**."One-pot three-component synthesis of α -amino phosphonate derivatives", Catalysis Communications 2007, 8 (7), 1023-1026.
25. Akbar Heydari, **Afsaneh Arefi Oskouie**, Samad Khaksar, Roohollah Kazem Shiroodi."Guanidine hydrochloride: An active and simple catalyst for Strecker type reaction", Journal of Molecular Catalysis A: Chemical 2007, 271 (1), 142-144

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27. Firouz Matloubi Moghaddama, Ghasem Rezanejade Bardajeea ,**Afsane Arefi Oskouie**, “A Mild and chemoselective dithioacetalization of aldehydes in the presence of anhydrous copper (II) sulfate”, Phosphorus, Sulfur, and Silicon 2006, 181 (6), 1445-1450
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2.Conferences

2-1-Oral presentation:

Afsaneh Arefi Oskouie ,” Metabolomics and diseases”[In Persian, Metabolomics va baimariha”], 1th seminar of systems Biology, Tehran, Iran. 2016, oral presentation.

2-2-Posters:

1. **Afsaneh Arefi Oskouie** .”Metabolomics and Toxicology” , the Third national seminar on the role of medical Basic Sciences in health promotion, Tehran, Iran. 2015.
2. Akram Safaei, Mostafa Rezaei Tavirani, Afsaneh Arefi Oskouie “Metabolomics for serum Biomarker Discovery in cirrhosis”, The Third National Seminar on the role of medical Basic Sciences in health promotion, The Third national seminar on the role of medical basic sciences in health promotion, Tehran, Iran. 2015.
3. Mona Zamanian Azodi, Mostafa Rezaei Tavirani, **Afsaneh Arefi Oskouie** “Molecular and Neurobiological Studies in Obsessive Compulsive Disorder (OCD)” , The Third national seminar on the role of medical basic sciences in health promotion, Tehran, Iran. 2015.
4. Akram Safaei, Mostafa Rezaei Tavirani, **Afsaneh Arefi Oskouie** “Proteomics for serum Biomarker Discovery in Cirrhosis”, The Third national seminar on the role of medical basic sciences in health promotion, Tehran, Iran. 2015.
5. **Afsaneh Arefi Oskouie**, “Dynamic stereochemistry of Rutin (vitamin P) in solution: Theoretical Approaches and experimental NMR validation”, 17th Iranian seminar of organic chemistry, University of Mazandaran, Babolsar, Iran .2010.
6. **Afsaneh Arefi Oskouie**, “An Efficient synthesis of 1-Amino-1-Phenyl-2-(N-Piperidino methyl) cyclohexane”. 17th Iranian seminar of organic chemistry, University of Mazandaran, Babolsar, Iran .2010.
7. **Afsaneh Arefi Oskouie**, Akbar Heydari, “Tetramethylguanidine (TMG) as a selective and highly efficient catalyst for conjugate addition of cyanide to α,β -unsaturated enones”, 17th Iranian seminar of organic chemistry, University of Mazandaran, Babolsar, Iran .2010.
8. **Afsaneh Arefi Oskouie**, Fariba Fathi, Mohsen Tafazzoli, , Zahra Karimnia, Salman Taheri, Mostafa Rezaie-Tavirani, Mohamad Rostami Nejad, Mohamad Reza Zali. “Comparison of scale for metabonomics studies of Crohn's and Celiac disease based on NMR technique”, 2nd National Seminar on the Role of Medical Basic Sciences on Health Promotion, Tehran, Iran. 2012.

9. Fariba Fathi, **Afsaneh Arefi Oskouie** *, Mohsen Tafazzoli, Zahra Karimnia, Salman Taheri, Mostafa Rezaie-Tavirani, Mohamad Rostami Nejad, Mohamad Reza Zali. "Metabonomics study of serum blood for celiac disease", 2nd National Seminar on the Role of Medical Basic Sciences on Health Promotion, Tehran, Iran .2012.
10. **Afsaneh Arefi Oskouie** , Fariba Fathi, Mohsen Tafazzoli, Fatemeh Ektefa, Mohamad Reza Zali ,Mohamad Rostami Nejad,Salman Taheri."Assessment of Serum Zinc Level in Crohn patients in Tehran City", 2nd National Seminar on the Role of Medical Basic Sciences on Health Promotion, Tehran, Iran. 2012.
11. Fariba Fathi, **Afsaneh Arefi Oskouie**, Mohsen Tafazzoli , Zahra Karimnia,Salman Taheri, Mostafa Rezaye-Tavirani, Mohamad Rostami Nejad,Mohamad Reza Zali."Application Orthogonal Signal Correction (OSC) in metabonomics of Celiac Disease", 2nd National Seminar on the Role of Medical Basic Sciences on Health Promotion, Tehran, Iran .2012.
12. **Afsaneh Arefi Oskouie**, Fariba Fathi, Mohsen Tafazzoli, Mohammad Reza Zal, Mohammad Rostami Nejad "Evaluation of Serum Zinc Level in Celiac Patients in Tehran", 2nd National Seminar on the Role of Medical Basic Sciences on Health Promotion, Tehran, Iran .2012.
13. **Afsaneh Arefi Oskouie** "Metabolomics based on GC-MS Technique", 2nd National Seminar on the Role of Medical Basic Sciences on Health Promotion, Tehran, Iran .2012.
14. **Afsaneh Arefi Oskouie**, Leila Ma'mani ,Ehsan Rahimian Mohhamadi. "Preparation and characterization of nanohydroxyapatite-coated iron oxide nanoparticles by ultrasonic technique", The First National Seminar On The Role of Basic Sciences On Health Promotion, Tehran, Iran
15. Leila Ma'mani, **Afsaneh Arefi Oskouie**, Mehdi Sheykhani, Ehsan Rahimian Mohhamadi. "Antibacterial properties of Silver Nanoparticle Embedded on Hydroxyapatite-Encapsulated γ - Fe_2O_3 " The First National Seminar On The Role of Basic Sciences On Health Promotion, Tehran, Iran.
16. Azam Shahbodaghi, **Afsaneh Arefi Oskouie** . "Investigating the trend followed by scientists worldwide, from 1947 to 2009, to use Chemistry in medical research dealing with prevention, diagnosis and therapy", The First National Seminar on the Role of Basic Sciences On Health Promotion, Tehran, Iran.

Books:

Afsaneh Arefi Oskouie, Organic Chemistry[In Persian Titles: Shimi ali], 2008, Ostadi Publisher, Tehran.Iran.

Area of Interests:

- Nuclear magnetic resonance spectroscopy and its application to identification of bio molecules
- Natural products by advance techniques 2D NMR spectroscopy and theoretical methods.
- Design of Catalysts in Green Chemistry.
- Study of influence of Pharmaceuticals Compounds in disease.
- Metabonomics

References

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