

Curriculum Vitae

Name: **Maryam Mohamadi Nejad**

Date of Birth: July 1985

Place of Birth: Kerman, Iran

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Educational Record

Degree	Major	Institution	Year	
B. Sc.	Pure Chemistry	Shahid Bahonar University of Kerman	2007	Top student
M. Sc.	Analytical Chemistry	Shahid Bahonar University of Kerman	2010	Top student
Ph. D.	Analytical Chemistry	Shahid Bahonar University of Kerman	2014	Top student

Research Interest

- Bioanalytical chemistry
 - Biosensors
 - Phytochemistry
 - Electrochemistry
 - Extraction Methods
 - Nano Chemistry
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Thesis Title

Maryam Mohamadi, Department of Chemistry, Shahid Bahonar University of Kerman, **Solidified Floating Organic Drop Microextraction Based on Ultrasound-Dispersion and Dispersive Liquid-Liquid Microextraction Using Task-Specific Ionic Liquids for the Extraction and Preconcentration of Metal Ions**, Supervisor: Prof. Ali Mostafavi, August 2010.

Dissertation Title

Maryam Mohamadi, Department of Chemistry, Shahid Bahonar University of Kerman, **Electrochemical and spectroscopic studies of the interaction of DNA with oleuropein and rosmarinic acid & fabrication of DNA-based electrochemical biosensors for the determination of uric acid, oleuropein, rosmarinic acid and miRNA-145**, Supervisor: Prof. Ali Mostafavi, Advisor: Dr. Masoud Torkzadeh-Mahani, September 2014.

Publications

- 1- Maryam Mohamadi, Ali Mostafavi, A novel solidified floating organic drop microextraction based on ultrasound-dispersion for separation and preconcentration of palladium in aqueous samples, **Talanta** **81** (2010) **309–313**
- 2- Maryam Mohamadi and Ali Mostafavi, Flame atomic absorption determination of trace amount of cadmium after preconcentration using a thiol-containing task-specific ionic liquid, **Journal of AOAC International** **94** no. **3** (2011) **959-967**.
- 3- Maryam Mohamadi, Ali Mostafavi and Tayebeh Shamspur, Effect of storage on essential oil content and composition of *R. damascena* Mill. petals under different conditions, **Journal of Essential Oil Bearing Plants** **14** no. **4** (2011) **78-84**.
- 4- Tayebeh Shamspur, Maryam Mohamadi and Ali Mostafavi, The effects of onion and salt treatments on essential oil content and composition of *Rosa damascena* Mill., **Industrial Crops and products** **37** (2012) **451-456**.
- 5- Maryam Mohamadi, Tayebeh Shamspur and Ali Mostafavi, Comparison of Microwave-Assisted Distillation and Conventional Hydrodistillation in the Essential Oil Extraction of Flowers *Rosa damascena* Mill., **Journal of Essential Oil Research** **25** (2013) **55-61**.
- 6- Maryam Mohamadi, Ali Mostafavi and Masoud Torkzadeh-Mahani, Voltammetric behavior of uric acid on carbon paste electrode modified with salmon sperm dsDNA and its application as label-free electrochemical sensor, **Biosensors and Bioelectronics** **54** (2014) **211–216**.

- 7- Maryam Mohamadi, Tayebeh Shamspur, Ali Mostafavi, Comparison of the essential oil content and composition of the spathe, buds and pollen of *Phoenix dactylifera*, **Natural Product Communications**, **28** (2014) 205-207.
- 8- Asma Saljooqi, Tayebeh Shamspur, Maryam Mohamadi and Ali Mostafavi, Application of a thiourea-containing task-specific ionic liquid for solid phase extraction clean-up of lead ions from red lipstick, pine leaves and water samples, **Journal of Separation Science**, **37** (2014) 1856-1861.
- 9- Elham Oladi, Maryam Mohamadi, Tayebeh Shamspur and Ali Mostafavi, Spectrofluorimetric Determination of Melatonin in Kernels of Four Different Pistacia Varieties after Ultrasound-Assisted Solid-Liquid Extraction, **Spectrochimica Acta**, **132** (2014) 326–329.
- 10- Maryam Mohamadi, Ali Mostafavi and Masoud Torkzadeh-Mahani, Electrochemical determination of biophenol oleuropein using a simple label-free DNA biosensor, **Bioelectrochemistry** **101** (2015) 52–57.
- 11- S. Yousef Ebrahimipour, Iran Sheikhshoaie, Maryam Mohamadi, Sebastian Suarez, Ricardo Baggio, Moj Khaleghi, Masoud Torkzadeh-Mahani, Ali Mostafavi, Synthesis, characterization, X-ray crystal structure, DFT calculation, DNA binding and antimicrobial assays of two new mixed-ligand ternary copper (II) complexes, **Spectrochimica Acta Part A** (2015) **142** (2015) 410-422.
- 12- Behnaz Afzalin, Joel T. Mague, S. Yousef Ebrahimipour, Maryam Mohamadi, Behjat Pooramiri, Esmat Tavakolinejad Kermani, Ni(II), Co(II), and Cu(II) complexes incorporating 2-pyrazinecarboxylic acid: Synthesis, characterization, electrochemical evaluation, and catalytic activity for the synthesis of 2H-indazolo[2,1-b]phthalazine-triones, **Chinese Journal of Catalysis** **36** (2015) 1101-1108.
- 13- Asma Saljooqi, Tayebeh Shamspur, Maryam Mohamadi, Daryoush Afzali, Ali Mostafavi, A microextraction procedure based a task-specific ionic liquid for lead ions separation and determination in red lipstick and pine leaves samples, **Journal of Separation Science** (2015) **38** (2015) 1777–1783.
- 14- S. Yousef Ebrahimipour, Iran Sheikhshoaie, Jesús Castro, Wolfgang Haase, Maryam Mohamadi, Sabine Foro, Mahdie Sheikhshoaie, Saeed Esmaili Mahani, A novel cationic copper(II) Schiff base complex : Synthesis, spectral characterization, crystal structure, electrochemical and anti-cancer activities, **Inorganica Chimica Acta** **430** (2015) 245-252.
- 15- Maryam Mohamadi, Daryoush Afzali, Saeed Esmaeili-Mahani, Ali Mostafavi, Masoud Torkzadeh-Mahani, Spectroscopic and electrochemical studies of the interaction between oleuropein, the major biophenol in olives, and salmon sperm DNA, **Spectrochimica Acta Part A** **148** (2015) 260–265.
- 16- Fatemeh Rezazadeh, Maryam Mohamadi, Daryoush Afzali, Tayebeh Shamspur, Ali Mostafavi, A quercetin biosensor based on chitosan-entrapped carbon nano tube paste electrode coated with DNA, **Journal of AOAC International** **98** (2015) 1375-1381.
- 17- S. Yousef Ebrahimipour, Maryam Mohamadi, Jesús Castro, Nasrin Mollania, Hadi Amiri Rudbari, Alessandro Saccá, Syntheses, characterizations, crystal structures, and biological activities of two new mixed ligand Ni(II) and Cu(II) Schiff base complexes, **Journal of Coordination Chemistry** **68** (2015) 632-649.
- 18- Iran Sheikhshoaie, S. Yousef Ebrahimipour, Mahdieh Sheikhshoaie, Maryam Mohamadi, Mehdi Abbasnejad, Hadi Amiri Rudbari, Giuseppe Bruno, Synthesis, characterization, X-ray crystal structure, electrochemical evaluation and anti-cancer studies of a mixed ligand Cu(II) complex of (E)-N-((2-hydroxynaphthalen-1-yl)methylene)acetohydrazide, **Journal of Chemical Sciences**, **127** (2015) 2193-2200.
- 19- Maryam Mohamadi, S. Yousef Ebrahimipour, Masoud Torkzadeh-Mahani, Sabine Foro, Alireza Akbari, A mononuclear diketone-based oxido-vanadium(IV) complex: structure, DNA and BSA binding, molecular docking and anticancer activities against MCF-7, HPG-2, and HT-29 cell lines, **RSC Advances**, **5** (2015) 101063-101075.

- 20- Maryam Mohamadi, Ali Mostafavi, Masoud Torkzadeh-Mahani, Voltammetric Determination of Rosmarinic Acid on Chitosan/Carbon Nanotube Composite-Modified Carbon Paste Electrode Covered with DNA, **Journal of The Electrochemical Society**, **162** (2015) B344-B349.
- 21- S. Yousef Ebrahimipour, Maryam Mohamadi, Iran Sheikhshoae, Sebastian Suarez, Ricardo Baggio, Moj Khaleghi, A novel oxido-vanadium(V) Schiff base complex: synthesis, spectral characterization, crystal structure, electrochemical evaluation and biological activity, **Research on Chemical Intermediate** **42** (2016) 611–623.
- 22- Somayeh Sedaghat, Tayebeh Shamspur, Maryam Mohamadi, Ali Mostafavi, Extraction and preconcentration of hemin from human blood serum and breast cancer supernatant, **Journal of Separation Science** **38** (2016) 4286–4291.
- 23- Maryam Mohamadi, S. Yousef Ebrahimipour, Jesus Castro, Masoud Torkzadeh-Mahani, Synthesis, characterization, crystal structure, DNA and BSA binding, molecular docking and in vitro anticancer activities of a mononuclear dioxido-uranium(VI) complex derived from a tridentate ONO aroylhydrazone, **Journal of Photochemistry and Photobiology, B: Biology** **158** (2016) 219–227.
- 24- Reza Takjoo, Alireza Akbari, S. Yousef Ebrahimipour, Maciej Kubicki, Maryam Mohamadi, Nasrin Mollania, Synthesis, spectral characterization, DFT calculations, antimicrobial activity and molecular docking of 4-bromo-2-((2-hydroxy-5-methylphenylimino)methyl)phenol and its V(V) complex, **Inorganica Chimica Acta** **455** (2017) 173–182.
- 25- Maryam Mohamadi, Asadollah Hassankhani, S. Yousef Ebrahimipour, Masoud Torkzadeh-Mahani, In vitro and in silico studies of the interaction of three tetrazoloquinazoline derivatives with DNA and BSA and their cytotoxicity activities against MCF-7, HT-29 and DPSC cell lines, **International Journal of Biological Macromolecules** **94** (2017) 85–95.

Presentations

- 1- Maryam Mohamadi and Ali Mostafavi, A new design of liquid phase microextraction based on solidification and cloud point microextraction for preconcentration of palladium, **16th Iranian Seminar of Analytical Chemistry, 2009, Bu-Ali University, Hamedan, Iran.**
- 2- Tayebeh Shamspur, Ali Mostafavi and Maryam Mohamadi, Comparative survey on chemical composition of volatile oils of *Salix aegyptiaca* L. in different locations of Iran, **12th Iranian pharmaceutical sciences congress, 2010, Zanzan University of Medical Science, Zanzan, Iran.**
- 3- Ali Mostafavi, Tayebeh Shamspur and Maryam Mohamadi, Evaluation a technique for reserving of the petals and immunization on the essential oil content and composition of *R. damascena* before distillation, **12th Iranian pharmaceutical sciences congress, 2010, Zanzan University of Medical Science, Zanzan, Iran.**
- 4- Maryam Mohamadi and Ali Mostafavi, Liquid phase microextraction based on task-specific ionic liquid for selective separation and preconcentration of cadmium, **17th Iranian Seminar of Analytical Chemistry, 2010, Kashan University, Kashan, Iran.**
- 5- Maryam Mohamadi¹, Ali Mostafavi¹, Tayebeh Shamspur and Hamideh Asadollahzadeh, Chemical composition of *Melissa officinalis* extracted by maceration in hexane, **10th Payame Noor Chemistry Conference, 2012, Payame Noor University, Kerman Branch, Kerman, Iran.**
- 6- Maryam Mohamadi, Tayebeh Shamspur, Ali Mostafavi and Zahra Hasani, Identification of chemical composition of *Myrtus communis* essential oil using gas chromatography/mass spectrometry, **10th Payame Noor Chemistry Conference, 2012, Payame Noor University, Kerman Branch, Kerman, Iran.**
- 7- Asma Saljooqi, Ali Mostafavi, Tayebeh shamspur, Maryam Mohamadi, Multi-walled Carbon Nanotubes Modified by Ionic Liquid as a Sorbent for Separation and Preconcentration Pb(II) Ions, **10th Payame Noor Chemistry Conference, 2012, Payame Noor University, Kerman Branch, Kerman, Iran.**

- 8- Maryam Mohamadi, Tayebeh Shamspur and Ali Mostafavi, Phytochemical survey of volatile compounds in pollen, flower and spath of *Phoenix dactylifera*, **National Congress on Medicinal Plants, 2012, Research Centre of Medicinal Plants, Yasuj University of Medical Science, Yasuj, Iran.**
- 9- Maryam Mohamadi, Ali Mostafavi and Tayebeh Shamspur, Use of microwave for essential oil extraction of Damask rose, **National Congress on Medicinal Plants, 2012, Research Centre of Medicinal Plants, Yasuj University of Medical Science, Yasuj, Iran.**
- 10- Maryam Mohamadi, Ali Mostafavi, Daryoush Afzali, Saeed Esmaeili-Mahani, Determination of oleuropein using an electrochemical DNA biosensor, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 11- Maryam Mohamadi, Ali Mostafavi, Tayebeh Shamspur, Masoud Torkzadeh-Mahani, Survey of the interaction between oleuropein and DNA using voltammetry, fluorescence titration and thermal denaturation studies, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 12- Fatemeh Rezaadeh, Ali Mostafavi, Daryoush Afzali, Maryam Mohamadi, A label-free sensitive electrochemical DNA biosensor for quercetin determination, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 13- Maryam Mohamadi, Ali Mostafavi, Masoud Torkzadeh-Mahani, Daryoush Afzali, Electrochemical study of the interaction between uric acid and DNA, **The 16th Iranian Chemistry Congress, 2013, Yazd University, Yazd, Iran.**
- 14- Asma Saljooqi, Ali Mostafavi, Tayebeh Shamspur, Maryam Mohamadi, Use of a thiol-containing task-specific ionic liquid for the separation and preconcentration of Pb (II) from pine leaves and lipstick samples before graphite furnace atomic absorption spectrometry determination, **The 16th Iranian Chemistry Congress, 2013, Yazd University, Yazd, Iran.**
- 15- Roya Afsharypour, Tayebeh Shamspur, Ali Mostafavi and Maryam Mohamadi, GC/MS analysis of the essential oil of *Ducrosia flabellifolia* and comparison with those of *Ducrosia assadi* and *Ducrosia anethifolia*, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 16- Somayeh Sedaghat, Ali Mostafavi, Tayebeh Shamspur and Maryam Mohamadi, Determination of ultra-trace amounts of tellurium ions using ultrasound-assisted microextraction based on task-specific ionic liquid, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 17- Somayeh Sedaghat, Tayebeh Shamspur, Ali Mostafavi and Maryam Mohamadi, Ultrasound-assisted microextraction based on task-specific ionic liquid for the preconcentration of Ag(I) ions, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 18- Fatemeh Azadmehr, Daryoush Afzali, Masoud Torkzadeh, Maryam Mohammadi, HPLC determination of trace amounts of melatonin after dispersive liquid-liquid microextraction, **20th Iranian Seminar of Analytical Chemistry, 2013, Isfahan University of Technology, Isfahan, Iran.**
- 19- Somayeh Sedaghat, Maryam Mohamadi, Tayebeh Shamspur, Ali Mostafavi, Selective Ultrasound-Assisted Microextraction of Trace Amounts of Hemin Using a Task-Specific Ionic Liquid, **17th Iranian Chemistry Congress, 2014, Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran.**
- 20- Fatemeh Rezaadeh, Maryam Mohamadi, Daryoush Afzali, Ali Mostafavi, A Lawsone-Entrapped Carbon Paste Electrode Modified with Gold Nano Particles for the Electrochemical Determination of Bio-phenol Oleuropein, **17th Iranian Chemistry Congress, 2014, Vali-e-Asr University of Rafsanjan, Rafsanjan, Iran.**

- 21- Zahra Biniiaz, Tayebeh Shamspoura, Masoud Torkzadeh-Mahanib, Maryam Mohamadic, Ali Mostafavi, A Sensitive Electrochemical Immunosensor for the Determination of Prostate Specific Antigen, **22nd Iranian Seminar of Analytical Chemistry, 2015, Tehran, Iran.**
- 22- Zahra Biniiaz, Tayebeh Shamspour, Maryam Mohamadi, Masoud Torkzadeh-Mahani, Ali Mostafavi, An Electrochemical Immunosensor for the Detection of Cancer Biomarker Carcinoembryonic Antigen, **22nd Iranian Seminar of Analytical Chemistry, 2015, Tehran, Iran.**
- 23- Faezeh Samareh Mohsenbigi, Tayebeh Shamspur, Maryam Mohamadi, Ali Mostafavi, Removal of dye methylene blue from water using quince fuzz, a low-cost sorbent, **International conference on environmental science, engineering and technologies, 2015, University of Tehran, Tehran, Iran.**
- 24- Neda Jazini Zadeh, Tayebeh Shamspur, Maryam Mohamadi, Ali Mostafavi, A DNA biosensor based on chitosan-TiO₂ nano composite for the electrochemical determination of paracetamol, **22nd Iranian Seminar of Analytical Chemistry, 2016, Chemistry and Chemical Engineering research center of Iran, Tehran, Iran.**
- 25- Zahra Jahromi, Ali Mostafavi, Maryam Mohamadi, Tayebe Shamspour, Coupling of microextraction and voltammetry techniques for the determination of hemin in human serum samples, **12th Annual Electrochemistry Seminar of Iran, 2016, Tarbiat Modares University, Tehran, Iran.**
- 26- Zahra Jahromi, Ali Mostafavi, Maryam Mohamadi, Tayebe Shamspour, Voltammetric determination of tetracycline at the surface of poly(thionine)-modified carbon nanotube paste electrode, **12th Annual Electrochemistry Seminar of Iran, 2016, Tarbiat Modares University, Tehran, Iran.**
- 27- Neda Jazini Zadeh, Maryam Mohamadi, Tayebeh Shamspur, Ali Mostafavi, Application of CoFe₂O₄NPs/chitosan nano-composite for the electrochemical determination of biophenol rosmarinic acid, **4th International Congress on Nanoscience & Nanotechnology, 2016, Kuala Lumpur, Malaysia.**

Reviewing for Journals

- 1- **International Journal of Environmental Analytical Chemistry**, Ultrasound-assisted emulsification microextraction based on solidification trace amounts of Tl(III) in water samples, **2011.**
- 2- **Arabian Journal of Chemistry**, The determination of carbaryl residues in drinking water from Wad Madani Town, Sudan, **2011.**
- 3- **Journal of Chemistry**, Separation and preconcentration of trace amounts of manganese and nickel from natural water samples by a diimine derivative Schiff's base coated silica-jel minicolumn, **2012.**
- 4- **Arabian Journal of Chemistry**, On-line cloud point extraction combined with flame atomic absorption spectrometry for preconcentration and determination of titanium, **2012.**
- 5- **Molecules**, Aqueous ionic liquid based ultrasonic assisted extraction of eight ginsenosides from ginseng root, **2012.**
- 6- **Journal of Essential Oil Bearing Plants**, Chemical Compositions of *Salix aegyptiaca* L. Obtained by Simultaneous Hydrodistillation and Extraction, **2012.**
- 7- **Arabian Journal of Chemistry**, Green chemistry approach to analysis of formic acid and acetic acid in aquatic environment by headspace water based liquid-phase microextraction and high-performance liquid chromatography, **2013.**
- 8- **Natural Product Research**, Chemical composition of essential oil and in vitro antioxidant activity of the methanol extracts of *Dorema ammoniacum* D. Don. From Iran, **2013.**
- 9- **International Journal of Environmental Analytical Chemistry**, Dispersive liquid-liquid microextraction trace amounts of molybdenum prior to electro-thermal atomic absorption spectrometry determination, **2013.**

- 10- **Ionics**, Determination of uric acid by ion exchange voltammetry at a permselective electrochemical sensing platform, **2014**.
- 11- **Biosensors & Bioelectronics**, A novel electrochemical sensor based on in-situ polymerized molecularly imprinted membranes at grapheme modified electrode for artemisinin determination, **2014**.
- 12- **Biosensors & Bioelectronics**, An exonuclease-assisted amplification electrochemical aptasensor for Hg²⁺ detection based on hybridization chain reaction, **2015**.
- 13- **Natural Product Research**, A green approach for the synthesis of silver nanoparticles using root extract of Chelidonium majus: characterization and antibacterial evaluation, **2015**.
- 14- **Biosensors & Bioelectronics**, Ultrasensitive and Multiple Disease-related MicroRNA Detection Based on Tetrahedral DNA Nanostructures and Duplex-Specific Nuclease-Assisted Signal Amplification, **2016**.

Workshop Holding

۱- ایمنی اصول صحیح انبارداری و نگهداری مواد شیمیایی

Workshop Participation

- 1- Advantages of multidimensional ion chromatography for trace analysis
- 2- Endnote soft ware
- 3- Nano technology
- 4- Nano particles
- 5- Scanning probe microscopes
- 6- Milestone workshop

۷- منابع الکترونیکی تخصصی شیمی

۸- کارآفرینی و مهارتهای شروع کسب و کار

۹- تدوین طرح کسب و کار

۱۰- کارگاه آموزشی ملی تعمیر و نگه داری تجهیزات آزمایشگاهی پژوهشگاه استاندارد

Research projects

- ۱۱- ساخت یک حسگر جدید اصلاح شده با نانولوله های کربنی برای اندازه گیری الکتروشیمیایی مقادیر کم یونهای فلزی در نمونه های محیطی
- ۱۲- طراحی و ساخت کیت سنجش کاسپاز ۳ و ۷

Teaching Experience

- 1- Shahid Bahonar University of Kerman, Analytical Chemistry
- 2- Shahid Bahonar University of Kerman, General Chemistry
- 3- Shahid Bahonar University of Kerman, Instrumental analysis laboratory
- 4- Shahid Bahonar University of Kerman, Analytical chemistry laboratory (I and II)
- 5- Shahid Bahonar University of Kerman, General chemistry laboratory (I and II)
- 6- Rafsanjan University of Medical Sciences, General Chemistry
- 7- Rafsanjan University of Medical Sciences, General chemistry laboratory (I and II)
- 8- Rafsanjan University of Medical Sciences, Environmental chemistry
- 9- Rafsanjan University of Medical Sciences, Environmental chemistry laboratory