

CURRICULUM VITA



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Date of Birth: 1982/5/16
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Language: Persian, English

Education: B. Sc. in Chemistry (2001-2004)
Arak University, Arak, Iran
M. Sc. in Analytical Chemistry (2004-2006)
Shahid Beheshti University, Tehran, Iran
Ph. D. in Analytical Chemistry (2007)
Shahid Beheshti University, Tehran, Iran

Average: B. Sc. = 17.33
M. Sc. = 18.13

Title of Thesis:

M. SC.: Preparation of new Micro and Nano chiral columns for trace analysis of chiral compounds in HPLC method & Identification of Trichlorfon derivatives by ^{31}P NMR and Ab initio methods.

Ph. D.: Preparation and engineering of metal nano particles and applications in Solid Phase Nano Extraction (SPNE) and Nano Bio Sensors

Professional experiences:

Powerhouse of combinational cycle of Qom (2004)

Nauclier Energy Organization of Esfahan (Zirconium plant product (ZPP)) (2007)

Niro Research Institute (2008-2009)

Didactic experiences:

Solving problems of Instrumental analytical chemistry, Shahid Beheshti University (2007)

Teaching of laboratory of Analytical chemistry I and II, Shahid Beheshti University, (2008)

Teaching of Laboratory of Instrumental Analytical chemistry, Shahid Beheshti University, (2008).

Research Activity & Publications:

(2010): preconcentration and determination of ultra trace platinum in human serum using the combined electrodeposition-electrothermal atomic absorption spectroscopy (ED-ETAAS) and chemometric method, In Press in **journal of pharmaceutical and biomedical analysis, (2010).**

(2010): Inorganic selenium speciation in environmental samples using selective electrodeposition coupled with electrothermal atomic absorption spectroscopy, In Press in **Spectrochimica acta part B:atomic spectroscopy, (2010).**

(2010): A method for making SPME fiber, Filing in **USPATENT, Pub. No.: US 2010/0000261 A1.**

(2009): Developing electrodeposition techniques for preconcentration of ultra-traces of Ni, Cr and Pb prior to arc-atomic emission spectrometry determination published in **Microchemical Journal**, 93 (2009) 159-163.

(2009): Multivariate optimization of hydrodistillation headspace solvent microextraction of Thymol and Carvacrol from *Thymus transcaspicus*, Published in **Talanta**, 79 (2009) 695-699.

(2009): Microcolumn LC enantioseparation of chiral compounds using diol silica gel functionalized with vancomycin crystalline degradation products, **Jornal of Separation Science**, 32 (7) (2009) 918-922.

(2009): Experimental design for determination of ultra trace platinum in human whole blood using the combined electrodeposition-electrothermal atomic absorption spectroscopy (ED-ETAAS),
Submitted in **Journal of Trace Elements in Medicine and Biology.**

(2009): ³¹P NMR and computer simulations of structure of trichlorfon and its derivatives,
Accepted in **Journal of Structural Chemistry (JSC).**

- (2008): Chemical Analysis of Some Cosmetics, Detergent and Pharmaceutical Minerals used in Traditional Medicine of Iran and Evaluating the Methods of Analysis. Submitted in **Journal of Ethnopharmacology**.
- (2008): Theoretical study of structure, stability and infrared spectra of hydrogen bonding complexes pairing N-nitrosodiethanolamine (NDELA) and one to five water molecules, Published in **Journal of Structural Chemistry**, 1(4) (2008) 649-654.
- (2008): Crystalline degradation products of vancomycin as chiral stationary phase in microcolumn liquid chromatography, published in **Journal of Separation Science**, 31 (2008) 2339-2345.

Conference Presentations:

- (2010): ZnO 1-Dimensional nanostructures as new stationary phase for solid phase micro extraction (SPME), Published in **International 3rd Conference on Nanostructures (NS₂₀₁₀)**, Kish Island, Iran.
- (2009): Ultra trace determination of inorganic tellurium species in water samples by dispersive liquid-liquid microextraction combined with electrothermal atomic absorption spectrometry using palladium as a permanent modifier, *Published in* **16th Analytical chemistry conference**, BoAlisina University, Hamedan, Iran.
- (2009): Multivariate optimization of hydrodistillation headspace solvent microextraction of Thymol and Carrvacrol from *Thymus transcaspicus*, *Published in* **16th Analytical chemistry conference**, BoAlisina University, Hamedan, Iran.
- (2009): Modeling and optimization of dispersive liquid-liquid microextraction for speciation of tellurium with the aid of response surface methodology and experimental design, Published in **2nd Iranian Biennial Seminar of Chemometrics, Urmia, Iran.**
- (2009): Response surface methodology (RSM) based on BoxBehnken design as a chemometric tool for optimization of dispersive-solidificative solvent microextraction for speciation of selenium, Published in **2nd Iranian Biennial Seminar of Chemometrics, Urmia, Iran.**
- (2009): Speciation and determination of inorganic selenium species by a simple and rapid technique using selecting separation on mercury coated electrode coupled with

- electrothermal atomic absorption spectroscopy (ED-ETAAS) in water sample, published in **2nd Iranian Biennial Seminar of Chemometrics, Urmia, Iran.**
- (2009): Speciation and determination of inorganic selenium species by a simple and rapid technique using selective separation on mercury coated electrode coupled with electrothermal atomic absorption spectroscopy (ED-ETAAS) in water samples in **Colloquium Spectroscopicum Internationale XXXVI, Budapest, Hungary.**
- (2009): Design and development of pyrolyser for monitoring of power generator insulating materials degradation, Published in **9th international chemical engineering congress,** Kish, Iran.
- (2009): SnO₂ Nanorod Arrays as a Novel Stationary Phase for Solid-phase Microextraction (SPME), Published in **Nanotech Insight 2009 conference,** Barcelona, Spain.
- (2009): Investigation of surfactants effect on figures of Metal Nano particles, Published in **9th dense-material conference,** Ahvaz University, Iran.
- (2007): Monitoring and identification of the insecticide Trichlorfon derivatives by phosphorus-31 dynamic nuclear magnetic resonance spectroscopy and theoretical studies, Published in **35th Colloquium Spectroscopicum Internationale,** Xiamen, China.
- (2007): Application of Box-Behnken design in optimization of homogeneous liquid-liquid extraction for mononitrotoluenes determination in wast water samples by gas chromatography.
Published in the **15th analytical chemistry Conference,** Shiraz, Iran.
- (2007): Investigation of silica particle size on the enantiomeric separation on the CDP vancomycin HPLC micro-column.
Published in the **15th analytical chemistry Conference,** Shiraz, Iran.
- (2006): Chiral separation of enantiomers by Nano HPLC using a vancomycin crystalline degradation products-chiral stationary phase.
Published in **CHIRALITY 2006 Conference,** Busan, Korea.
- (2003): Application of Zeolites in some Organic Reactions as Catalysis
Published in **the First Iranian Chemistry Students' Conference,** Tehran University, Iran.

Research Projects:

- (2004): "Preparation of Nano Chiral Column of HPLC" for the Iranian Nanotechnology Initiative
- (2008): "Development of a Nano Biosensor based on Gold Nanoparticles' Surface Plasmon Resonance for Detection of Biological Particles" for Ministry of Science, Research and Technology.
- (2009): "Preparation of SPME fiber based on Nano rod and Nano tube of metal oxid" for Iranian Nano Technology initiative.
- (2009): "Monitoring of products resulted of generator insulator pyrolysis in cooling gas" for Niro Research institute.

Research Interest:

Preparation of Nano Biosensors for Detection of malignant cells and detection of mutations on DNA.

Preparation of Nano structure materials as novel stationary phase on SPME for detection of Drugs and pesticides.

References:

M.S. Supervisor: Dr. Nahid Mashkouri Najafi, Department of Chemistry, Faculty of Science, Shahid Beheshti University, Evin, Tehran, Iran

M.S. Advisor: Dr. Ali Reza Ghasempour, Department of Phytochemistry, Institute of Medicinal Plants and Drugs research Institute, Shahid Beheshti University, Evin, Tehran, Iran.

Ph.D. Supervisor: Dr. Nahid Mashkouri Najafi, Department of Chemistry, Faculty of Science, Shahid Beheshti University, Evin, Tehran, Iran.

Ph.D Advisor: Dr. Hassan Rafati, Department of Phytochemistry, Institute of Medicinal Plants and Drugs research Institute, Shahid Beheshti University, Evin, Tehran, Iran.