Curriculum Vitae

Personal information

First name: Maedeh

Last name: Ramezani

Birth Date: 11 Sep. 1986

Phone Number: +98 919 997 4963

Present Job Title: Post. Doc/ Ph.D

E-mail:maedehramzani@yahoo.com

m.ramezani@merc.ac.ir

Education:

- **Post-Doctoral:** Institute for environmental protection and sensors, University of Maribor, Slovenia. (March-July 2016).
- **Ph.D.,** Inorganic chemistry (2012-2016), Materials and Energy Research Center (MERC), Karaj, Iran.
- **M.Sc.**, Inorganic chemistry (2008-2011), Mazandaran University, Babolsar, Iran.
- **B.Sc.,** Chemistry (2004-2008) Mazandaran University, Babolsar, Iran.

Honors and Awards:

- Research grant from Institute for environmental protection and sensors, University of Maribor, Slovenia (March-July 2016).
- Research grant from Materials and Energy Research Center (MERC), Karaj, Iran (2013- February 2016).
- Research grant from Mazandaran University, Babolsar, Iran (2009-2010).

Patent

National Patent

- Transparent and hydrophobic nano coating on the construction materials

European Patent

- Synthesis of antibacterial copper nanoparticles for textile applications (submitted)
- Synthesis of conductive silver/polyaniline nanocomposites for textile applications (submitted).

Reviewer:

Journals of:

- Fibbers and polymer,
- Powder Technology,
- Journal of Adhesion Science and Technology,
- Nuclear Science and Techniques,
- Processing and Application of Ceramics,
- Royal Society of Chemical (RSC Advances).

Professional Experience

- "Synthesis and application of conductive and antibacterial nanomaterials for the textile industry" Institute for environmental protection and sensors, University of Maribor, Slovenia. Supervisor: Prof. Aleksandra Lobnik, Dr. Aljosa Kosak.

- "Synthesis and characterization of hydrophobic silica coatings based on functionalized silane by sol-gel method and their application on the surface modification" Supervisor: Dr. M.R. Vaezi and A. Kazemzadeh, P.h.D. Thesis.

- "Synthesis and characterization of binuclear cupper (II) complexes and evaluation of their choromotropism", Supervisor: Dr. H. Golchoubian, M.Sc. Thesis.

- "Synthesis of Superhydrophilic coating for the antifog application on the Glass and plastic surfaces" Nano Pad Sharif Company, (2016- 2017).

- "Research, analysis, feasibility and pilot production of hydrophobic coatings on the glass and transparent surfaces via the sol-gel method based on nanotechnology", Ramo Alibert company, (2015- 2016).

- "Development and manufacture of nano hydrophobic and anti-pollution coatings based on organosilane compound for the Insulator industry", Ramo Alibert company, (2015- present).

- "Fabrication of anti-static nano coating with the applicability in the industry of automotive tires" Ramo Alibert company, (2016- present).

- "Application and characterization of hydrophobic nano-coating in accordance with standards modernization of helicopter industry" Materials and Energy Research Center" (2015- 2016).

- "Codification of standard test methods for the hydrophobic coatings" Iran nanotechnology initiative council, (2015- 2016).

- Familiar with SPSS software, Basic, Office (Word, Excel, Power Point).

Training Courses:

1. Participation in training course of extraction of paper from the thesis, dissertation and research project.

2. Participation in training course of the application of the Scanning Electron Microscopy (SEM) in the nanotechnology.

3. Participation in training course of the application of the Transmission Electron Microscopy (TEM) in the nanotechnology.

4. Participation in training course of the application of the Atomic Force Microscopy (AFM) in the nanotechnology.

5. Participation in training course of coating and colour standards.

6. Participation in training course of the third school of advanced topics in the Synchrotron accelerator and its applications.

7. Participation in training course of synthesis and application of quantum dots.

8. Participation in training course of patent.

Publications:

1. **M. Ramezani**, M. R. Vaezi, A. Kazemzadeh, "Study of the water repellency of the modified silica films using different organoalkoxysilanes", Journal of Applied Physics A, 119 (3), 845-852.

2. **M. Ramezani**, M. R. Vaezi, A. Kazemzadeh, "Preparation of silane-functionalized silica films via two-step dip-coating sol–gel and evaluation of their superhydrophobic properties", Applied Surface Science 317 (2014) 147-153.

3. **M. Ramezani**, M. R. Vaezi, A. Kazemzadeh, "The influence of the hydrophobic agent, catalyst, solvent and water content on the wetting properties of the silica films prepared by one-step sol-gel method", Applied Surface Science 326 (2015) 99-106.

4.H. Golchoubian, S. Kohzad, **M. Ramzani,** D. Farmanzadeh, "Synthesis of copper (II) complexes incorporating N,N-dimethyl-N′-benzylethylenediamine andNCX (X = O, S and Se) ligands; A combined crystallographic, spectroscopic and DFT stud y", Polyhedron 51(2013) 1–9.

5.**M. Ramezani**, M. R. Vaezi, A. Kazemzadeh, Synthesis, characterization of the modified silica film and evaluation of processing parameters on the wettability and deposition of sol-gel prepared silica nanoparticles, submitted to the Journal of Ceramic Processing and Research (JCPR), (May-2016).

6. **M. Ramezani**, A. Kosak, A. Lobnik, Synthesis, characterization of silver nanoparticles by Aminopropyltrimethoxysilane as a capping agent and their antimicrobial activities, (under writing).

7. **M. Ramezani**, A. Kosak, A. Lobnik, Synthesis, characterization of copper nanoparticles by Aminopropyltrimethoxysilane as a capping agent and their antimicrobial activities, (under writing).

8. **M. Ramezani**, A. Kosak, A. Lobnik, Synthesis, characterization of silver /polyaniline nanocomposite and study of antimicrobial activities, (under writing).

Papers in national/international conference:

1- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Application of sol-gel prepared phenyl-modified silica coatings for the stone protection and evaluation of sol-gel chemistry on the wettability and surface modification, 23-26 June 2015, University of Maribor, Slovenia.

2- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Preparation of transparent water repellent silica coatings by sol-gel method, Proceedings of the Asian Nano Forum Congress (ANFC2015) 8-11 March 2015, Kish Island, Iran.

3- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Effect of modifying agent concentration on the silica surface treatment, Proceedings of the Asian Nano Forum Congress (ANFC2015) 8-11 March 2015, Kish Island, Iran.

4- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Effective factors on the hydrolysis and condensation reactions of sol-gel process, Proceedings of the Asian Nano Forum Congress (ANFC2015) 8-11 March 2015, Kish Island, Iran.

5- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Synthesis of hydrophobic glasses by sol-gel method using silylating agents, 1st International conference on Advanced ceramic, 4-6 May 2015, Materials and Energy Research Center, Karaj, Iran.

6- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Effect of the various synthetic parameters on the silica film formation, 1st International conference on Advanced ceramic, 4-6 May 2015, Materials and Energy Research Center, Karaj, Iran.

7- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh "Fabrication of Hydrophobic Silica Coatings for the Stone Protection", 5th International Biennial Conference on Ultrafine Grained and Nanostructured Materials, UFGNSM15, 2015- University of Tehran.

8. **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, "Investigation of hydrophobic properties of the synthesized silica coatings with different hydrophobic agents via sol-gel method", NCWNN1394, University of Kharazmi. 2015.

9. **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, "Effect of deposition time on the morphology and surface modification of the prepared silica film by two-step sol-gel method", NCWNN1394, University of Kharazmi, 2015.

10- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, PTES Modified Silica Films; Synthesis and characterization, 2nd conference of chemistry and petro chemistry, 15 May 2015, University of Shahid Beheshti, Tehran, Iran.

11- **M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, Transparent hydrophobic silica sol-gel coating on the glass substrate by dip coating, 16th Iranian Inorganic chemistry conference, 2014, Hamedan, Iran.

12-**M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, "Influence of the sol-gel chemistry on the wettability and morphology of the silica coatings", 15thSurface Engineering Congress, 2014, Tehran, Iran.

13-**M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, "Synthesis and characterization of superhydrophobic silica coatings on the glass substrate via sol-gel method", 15thSurface Engineering Congress, 2014, Tehran, Iran.

14-**M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, "Synthesis and characterization of the hydrophobic silica film by sol-gel co-precursor method", 2nd International Conference on Nanotechnology (ICN 2014), 9-11 July 2014, Istanbul, Turkey.

15-**M. Ramezani**, M.R. Vaezi, A. Kazemzadeh, "Non-fluorinated hydrophobic silica thin film through sol-gel processing of ethyltriethoxysilane ", 16th Iranian Inorganic Chemistry Conference, 2014, Hamedan, Iran.

16-**M. Ramezani**, H. Golchoubian, "Preparation of complexes of $[Cu(diamine)_2Y]ClO_4$ with some ambidentate ligands, characterization and X-Ray crystal structure",12th Iranian Inorganic Chemistry Conference, 2010, Rasht, Iran.

17-**M. Ramezani,** H. Golchoubian, "Synthesis, characterization and solvatechromic properties of new dinuclear complexes of Cu (II) with bridging azido ligand",12th Iranian Inorganic chemistry conference, 2010, Rasht, Iran,

18-**M. Ramezani,** H. Golchoubian, "Synthesis and solvatochromic studies of mono nuclear copper (II) complexes derived from diamine and pseudo halides",12th Iranian Inorganic Chemistry Conference, 2010, Rasht, Iran.

Membership in:

- Iranian Chemical Society
- Corrosion Society
- Surface Engineering
- Science and Surface Society

Contact Details of References:

Prof. Aleksandra Lobnik

Head of Centre for Sensor Technology, University of Maribor, Slovenia.

Email: aleksandra.lobnik@ios.si

Dr. Aljosa Kosak

Centre for Sensor Technology, University of Maribor, Slovenia.

Email: aljosa.kosak@siol.net

Prof. Mohammad Reza Vaezi

Division of Nanotechnology and Advanced Materials, Materials and Energy Research Center, Karaj, Iran
E-mail: m_r_vaezi@merc.ac.ir

Prof. Asghar Kazemzadeh

Division of Semiconductors, Materials and Energy Research Center, Karaj, Iran
E-mail: a-kazemzadeh@merc.ac.ir