



CURRICULUM VITAE

Mohsen Saeidi



Personal Information

- *Address:* Research Center for Nanostructure and Advanced Materials (RCNAM), Department of Materials Science and Technology, Sharif University of Technology, Azadi Ave., P. O. Box 11155-9466, Tehran, Iran.

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Research Interests

- Nanobioelectronic (Nanobiosensors, ...)
- Nanostructures (0D, 1D, 2D)

Education

- *Exchange Student*

- Material Science and Engineering, **Pohang University of Science and Technology (POSTECH), Pohang, South Korea**, Jan 2018 – Present.

Selected Courses: Nano biomaterials, Nucleic Acid Biomaterials and Biotechnology, Electron Diffraction & Microscopy, Analytics on TEM,

- *Ph.D. Student*

- Material Science and Engineering, Design and Selection of Engineering Materials, **Sharif University of Technology (SUT), Tehran, Iran**, Sep 2015 – Present. GPA: 17.82/20 (3.6/4)

Title of Proposal:

Synthesis and Characterization of flexible 3D graphene foams decorated with gold nanostructures as a biosensor for detection of adenosine triphosphate (ATP),

Supervisor: [Prof. A. Simchi](#)

- *M.Sc.*

- Material Science and Engineering, Design and Selection of Engineering Materials, **Iran University of Science and Technology (IUST), Tehran, Iran**, Sep 2008 – Nov 2011. GPA: 16.44/20 (3.4/4)

Title of Thesis:

Synthesis and Characterization of Alumina-Titania-Zirconia Nanocomposites via chemical routes, Supervisor: [Prof. H. Sarpooolaky](#).

- *B.Sc.*

- Material Science and Engineering, Ceramic Engineering, **Bu-Ali Sina University (BSU), Hamedan, Iran**, Sep 2004 – Sep 2008. GPA: 16.12/20 (3.3/4)

Honors and Awards

- Awarded **Ph.D. Fellowship for studying abroad**, Ministry of Science, Research and Technology, Mar 2016, Tehran, Iran.
- Ranked in **the top 1% of the Master's degree** participants in the national entrance exam, Feb 2008, Tehran, Iran.
- Awarded as **Outstanding Street-Smart Student** by head of university, May 2007, Bu-Ali Sina University, Hamedan, Iran.

Research Experience

- *Research Assistant*, Tehran University of Medical Science, Tehran, Mar 2017–Present.
 - *Title*: Graphene-based field-effect transistor as Hemoglobin biosensors, *A joint work by* [Prof. K. Omidfar](#) and Prof. A. Simchi.
- *Research Assistant*, Sharif University of Technology, Tehran, Mar 2016–Present.
 - *Title*: Hybrid graphene electrodes for biosensing: Physicochemical and sensing performance, *A joint work by* Prof. A. Simchi.
- *Research Assistant*, Chemistry and Chemical Engineering Research Center of Iran, Tehran, Aug 2013–Mar 2015.
 - *Title*: synthesis and characterization of zeolite supported catalysts for selective catalyst reduction of NO_x with ammonia, *Advisor*: Prof. M. Ghassemzadeh, Head of Research Institute of Chemical Processing Development.
- *Research Assistant*, Research Institute of Petroleum Industry (RIPI), Tehran, Iran, Sep 2012 – Jul 2013.
 - *Title*: Synthesis and characterization of Cu-Ni/YSZ-CeO₂ anodes for solid oxide fuel cells (SOFCs), *Advisor*: [Prof. F. Golestanifard](#), Head of Ceramic Synthesis and Refractory Lab. Iran University of Science and Technology, Tehran, Iran.
- *Undergraduate Dissertation's Advisor*, Iran University of Science and Technology, Tehran, Iran, Nov 2011 – Jul 2012.
 - *Title of Dissertation*: Synthesis and Characterization of TiO₂-ZrO₂ Nano-composites, *A joint work by* Prof. H. Sarpoolaky.

Teaching Experience:

- Sharif University of Technology, Tehran, Iran, Sep 2015–Present.
 - *Teacher Assistant, Principles of Polymer Engineering, Lecturer: Dr. Pircheraghi*
 - *Teacher Assistant, Materials Characterization Techniques, Lecturer: Prof. Asgari*
 - *Teacher Assistant, Crystallography and Diffraction & Lab, Lecturer: Dr. Tavakoli*
 - *Teacher Assistant, Principles of Materials Science and Engineering, Lecturer: Prof. Simchi*
- Islamic Azad University, Saveh, Iran, Fall & Spring 2014.
 - *Guest Lecturer, Ceramic Structures*

Publications

1. **M. Saeidi, M. Hamidzadeh**, Co-doping a metal (Cr, Mn, Fe, Co, Ni, Cu, and Zn) on Mn/ZSM-5 catalysts and its effect on the catalytic reduction of nitrogen oxides with ammonia, *J. of Research on Chemical Intermediates*, Vol. 43, No. 4, 2017, P. 2143-2157.
2. **M. Saeidi, M. Hamidzadeh, A. Tarlani, M. Ghassemzadeh**, Selective Catalyst Reduction Of Nitrogen Oxide Using Manganese Impregnated Zeolite (ZSM-5), *Iran Patent, Registration No. 87907, 6th Feb 2016 (17 Bahman 1394)*.
3. **M. Saeidi, H. Sarpoolaky, S. M. Mirkazemi**, Characterization and microstructure investigation of novel ternary $ZrO_2-Al_2O_3-TiO_2$ composites synthesized by citrate-nitrate process, *J. Sol-gel Sci Technol*, Vol. 76, No. 2, 2015, P. 436-445.
4. **M. Saeidi, H. Sarpoolaky, S. M. Mirkazemi**, Ultrasonic-assisted co-precipitation method of preparation of nanocomposites in the $Al_2O_3-TiO_2-ZrO_2$ system: characterization and microstructure, *J. of Ultrafine Grained and Nanostructured Materials*, Vol. 45, 2012, P. 7-12.
5. **M. Saeidi, H. Sarpoolaky**, Investigation of Performance Mechanism and Preparation Methods of NO_x Storage-Reduction Catalysts, *J. of Iranian Ceramic Society (in Persian)*, Vol. 27, 2010, P. 37-51.

Conferences and Workshops

1. **M. Saeidi, M. Hamidzadeh, A. Tarlani, M. Ghassemzadeh**, Performance of Co-, Fe- and Mn/ZSM-5 in Selective Catalytic Reduction (SCR) of NO_x , *16th Iranian Inorganic chemistry Conf. (IICC16)*, 27-29 Aug., 2014, Bu-Ali Sina University, Hamedan, Iran.
2. **M. Saeidi, H. Sarpoolaky, S. M. Mirkazemi**, Investigation of Temperature Effects and Synthesis Parameters on Phase Transformation and Microstructure of Alumina, Titania and Zirconia nanocomposite powders by Coprecipitation Rout, *4th Inter. Conf. on Nanostructures (ICNS4)*, 12-14 Mar., 2012, Kish Island, Iran.
3. **M. Saeidi, H. Sarpoolaky, S. M. Mirkazemi**, Ultrasonic-Assisted Co-Precipitation Method of Preparation of Nanocomposites in the $Al_2O_3-TiO_2-ZrO_2$ System: Characterization, Properties and Microstructure, *3rd Inter. Conf. on Ultrafine Grained and Nanostructured Materials*, 2-3 Nov., 2011, University of Tehran, Tehran, Iran.
4. Intellectual Property Rights and Patents, *Iran Nanotechnology Initiative Council, Mar 2012, Kish Island, Iran*.

Languages and Skills:

Laboratory:

- Expert in some material characterization methods, such as SEM, XRD, Spectroscopy Technics (FT-IR, UV-Vis, Raman and PL), TPD, Reactor Test (catalyst activity test), and electrochemical analyzing methods.

Simulation Softwares:

- X'Pert HighScore Analytical XRD Software; MATLAB; ABAQUOS.

General:

- MS office (Excel, Word, Power Point), Adobe Photoshop, MAC, Windows.

Programming Languages:

- Delphi, C++

Human Languages:

- **Persian:** Proficient (Native)
- **English:** Fluent
- **Deutsch:** Intermediate Level (B2)

Test Scores:

- **IELTS** (NOV/2012): ACADEMIC, Overall Band Score: 7.5

Listening: 7.0, Reading: 8, Writing: 7.5, Speaking: 7.0

- **GRE** (NOV/2015): General Revised,

Verbal Reasoning: 144, Quantitative Reasoning: 168, Analytical Writing: 3.5

References:

- **[Professor Abdolreza Simchi](#)**

Department of Material Science and Engineering, Sharif University of Technology, Iran.

Simchi@sharif.edu

- **[Professor Hossein Sarpoolaky](#)**

School of Metallurgy and Materials Engineering, Iran University of Science and Technology, Iran.

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- **[Professor Farhad Golestanifard](#)**

School of Metallurgy and Materials Engineering, Iran University of Science and Technology, Iran.

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- **[Professor Mitra Ghassemzadeh](#)**

Head of Research Institute of Chemical Processing Development, Chemistry and Chemical Engineering

Research Center of Iran, Tehran, Iran.

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- **[Dr. Gholamreza Pircheraghi](#)**

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