

Azin Khodaei

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Education

Ph.D. (Student)

[Nanotechnology](#), Institute for Nanoscience and Nanotechnology (INST), 2015, Sharif University of Technology, Tehran, Iran.

Thesis: Synthesis and study of drug release behavior in magnetic nanocomposite scaffolds made by electrospinning method

Supervisor: Prof. Reza Bagheri, Prof. HamidReza Madaah Hosseini

M.Sc.

[Materials Science and Engineering \(Nanomaterials/Nanotechnology\)](#), 2011-2013 (Total GPA: 18.23/20.00), Sharif University of Technology, Tehran, Iran.

Thesis: Preparation and Surface Modification of Manganese Oxide Nanoparticles as MRI Contrast agent (grade: 19.70/20.00)

Supervisor: Prof. HamidReza Madaah Hosseini

B.Sc.

[Materials Science and Engineering \(Industrial Metallurgy\)](#), 2007-2011 (Total GPA: 17.95/20.00), Isfahan University of Technology, Isfahan, Iran.

Thesis: Effects of Process Parameters of Ni Ultrafine/Nanoparticles Produced by Electromagnetic Levitational Gas Condensation Method (grade: 20.00/20.00)

Supervisor: Prof. Ahmad Kermanpur

Honors

- Admission without Examination (as exceptional talent) for PhD. in Institute for Nanoscience and Nanotechnology (INST), Sharif University of Technology.
- Ranked 3rd among Nanomaterials M.Sc. graduated students of Sharif University of Technology.
- Admission without Examination (as exceptional talent) for M.Sc. in Materials Science and Engineering department, Sharif University of Technology.
- Ranked 2nd among B.Sc. graduated students of Isfahan University of Technology.
- Ranked 2nd in 8th National Heat Treatment Competition, Islamic Azad University, Ahvaz, July 2011.
- Ranked 3600th among 150,000 Participants in Undergraduate Nationwide University, 2007.

Publications

Refereed ISI Publications

A. Khodaei*, M. Hasannasab, N. Amousoltani, A. Kermanpur, "Characterization of Pure Ni Ultrafine/Nanoparticles Synthesized by Electromagnetic Levitational Gas Condensation Method", Under revision, Materials Research Bulletin, 2016: 2012-2017.

Parisa Vahdatkhah; Hamid Reza Madaah Hosseini; Azin Khodaei; Ali Reza Montazerabadi; Rasoul Irajirad; Mohamad Ali Oghabian; Hamid Delavari H*, "Preparation of PVP-coated ultrasmall gadolinium oxide nanoparticles as a positive MRI contrast agent via rapid microwave-assisted polyol process", Chemical Physics, 2015: 35-41.

Submitted ISI Manuscript

Azin Khodaei, Mahrooz Malek, HamidReza MadaahHosseini*, Hamid Delavari H., Parisa Vahdatkhah, "Preparation of water- soluble PEGylated silane-grafted manganese oxide nanoparticles as super T1 MR Imaging contrast agent", Nanomedicine: Nanotechnology, Biology and Medicine, JN2017804.

Presentations

A. Khodaei, M. Hasannasab, N. Amousoltani, A. Kermanpur, "Effects Of Process Parameters of Ni Ultrafine/Nanoparticles Produced by Electromagnetic Levitational Gas Condensation Method", Poster presentation at 3rdinternational Conference on ultrafine Grained and Nanostructured Materials, University of Tehran, Tehran, Iran 2-3 November 2011.

A. Khodaei , P. Vahdatkhah , H. Delavari and H. R. Madaah Hosseini, "Microwave modified Polyol process in the Synthesis of Manganese Oxide Nanoparticles and its Characterization", Oral presentation at 4thInternational Conference on New and Advanced Materials (NAMIC 2013), Islamic Azad University, Majlesi Branch, Isfahan, Iran, August, 2013.

P. Vahdatkhah, H. R. Madaah Hosseini, A. Khodaei and H. Delavari H., "Microwave-Assisted Polyol Synthesis of PVP-Coated Ultrasmall Gadolinium Oxide Nanoparticles", The 22nd Iranian Seminar of Organic Chemistry, Faculty of Chemistry, University of Tabriz, Tabriz, Iran, August 2014.

Qualifications and Certificates

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| November 2016 | <ul style="list-style-type: none">• "3rd Physics of Advanced Materials (PAM) International School on Application of Nanomaterials in Medicine", Sharif University of Technology Tehran, Iran. |
| March 2016 | <ul style="list-style-type: none">• "Non-Traditional Synthesis of Nanostructured Materials" workshop by Prof. Kenneth S. Suslick, 6th International Conference on Nanostructures (ICNS6), Kish, Iran. |
| March 2016 | <ul style="list-style-type: none">• "Nanocrystal Growth and Characterization" workshop by Prof. Luis. Liz-Marzan, 6th International Conference on Nanostructures (ICNS6), Kish, Iran. |
| March 2015 | <ul style="list-style-type: none">• Innovation management and engineering, Isfahan Science & Technology Town, Isfahan, Iran.• Principles of International Trade (Import-Export), Isfahan Science & Technology Town, Isfahan, Iran. |
| February 2015 | <ul style="list-style-type: none">• Marketing Strategy Planning, Isfahan Science & Technology Town, Isfahan, Iran.• Business plan (BP) writing, Isfahan Science & Technology Town, Isfahan, Iran. |
| January 2015 | <ul style="list-style-type: none">• Product life cycle management, Isfahan Science & Technology Town, Isfahan, Iran.• Cost accounting, Isfahan Science & Technology Town, Isfahan, Iran.• Introduction to Bidding & Tendering, Isfahan Science & Technology Town, Isfahan, Iran. |

- December 2014
 - **Negotiation skills**, Isfahan Science & Technology Town, Isfahan, Iran.
 - **Crisis management in science based business**, Isfahan Science & Technology Town, Isfahan, Iran.
 - **Speaking skills**, Isfahan Science & Technology Town, Isfahan, Iran.
 - **Customer relationship management (CRM)**, Isfahan Science & Technology Town, Isfahan, Iran.

- November 2014
 - **Financial Analysis of Investment Project Scenarios with COMFAR software**, Isfahan Science & Technology Town, Isfahan, Iran.
 - **Agreement categories and assignment principles**, Isfahan Science & Technology Town, Isfahan, Iran.
 - **Finance**, Isfahan Science & Technology Town, Isfahan, Iran.

- November 2012
 - **Scanning electron microscopy (SEM) principles and applications**, Nanoscience and Nanotechnology council, Sharif University of Technology, Tehran, Iran.
 - **Decoding Patent Information**, Nanoscience and Nanotechnology council, Sharif University of Technology, Tehran, Iran.

- October 2012
 - **Iran-Korea Nanotechnology workshop**, Tarbiat Modares University, Tehran, Iran.

- November 2011
 - **Author Workshop conducted by Springer and Endz**, Sharif University of Technology, Tehran, Iran.

Skills and Abilities

- Proper work with general softwares: Microsoft office pack, windows and internet.
- Familiar with some professional softwares such as:
 - X'pert Highscore (XRD analysis software),
 - Imagej (microscopic image analyzer),
 - HSC Chemistry (thermochemical simulator and investigator),
 - Origin (industry-leading scientific graphing and data analysis software)
 - MATLAB
 - Fortran (Molecular Dynamics principles)
 - VMD (Molecular Dynamics Visualization)
- Able to work with some analytical lab. Instruments such as microhardness, tensile testing machine, metal forming instruments, etc.

Professional and Teaching Experiences

- Lab Instructor, general physics, Sharif University of Technology, fall 2016, spring 2017.
- R&D researcher at Pala Fanavaran Apadana Company, Isfahan Science & Technology Town, July 2014- July 2015.
- Research Assistant at Research Center for Science and Technology in medicine (Tehran University of Medical Sciences), April 2013 to July 2014.
- Working on Hot Gas Turbine Blade Coatings as a Trainee in Poudrafshan Company, Isfahan Science and Technology town, summer 2011.

Research Interests

- Synthesis, Characterization and Application of Nanostructured Materials, Nanocomposites and Nanoparticles.
- Hybrid Magnetic Nanoparticles and their Bioapplications.
- Design, Fabrication, and Characterization of organic and inorganic coatings.
- Simulation, Design of experiment and statistic studies.

References

- Prof. Reza Bagheri: Email: rezabagh@sharif.edu
- Prof. HamidReza Madaah Hosseini, Email: madaah@sharif.edu
- Prof. Ahmad Kermanpur: Email: Ahmad_k@cc.iut.ac.ir
- Dr. Hamid Delavari: Email: Hamid.delavari@modares.ac.ir