

# Hamid Delavari H.

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## Current Position

**2013 – Now**

Assistant Professor, Tarbiat Modares University, Tehran, Iran

## Research Interests

Develop nanoparticles for medical and environmental applications

- Contrast agents in MRI and CT imaging
- Cell tracking
- Magnetic hyperthermia treatment
- Remove environmental pollution by nanostructures

## Experience

Lecturer (MSc and PhD students), Tarbiat Modares University, Tehran, Iran

Nanomagnetism, Nanomaterials, Nanochemistry and Materials analysis

**2013 – Now**

Director and Joint Owner, Teb Sanat Rahyab Co. Tehran, Iran

**2013 – Now**

Postdoc, Sharif University of Technology, Tehran, Iran

**2012 – 2013**

Visitor, Uppsala University, Uppsala, Sweden

**2011 – 7 months**

## Education

Philosophy of Doctorate in Nanomaterials

Institute for Nanoscience and Nanotechnology, Sharif University of Technology

Tehran, Iran

**2007-2012**

Master of Science in Nanomaterials

Materials Engineering Department, Tarbiat Modares University

Tehran, Iran

**2005-2007**

Bachelor of Science

Materials Science and Engineering Department, Sharif University of Technology

Tehran, Iran

**2001-2005**

## Research Grant

Ministry of Industry, Mine and Trade, Iran, 2016

Microelectronic Research and Development Center, Iran, 2015

Nanotechnology Initiative Council, Iran, 2013 and 2015

Sharif University of Technology (Research assistant scholarship), Iran, 2009-2011

<b>Computer Tools</b>	Vampire (Atomistic simulation of magnetic nanomaterials) StatGraphics (Data analysis and statistical software) X'Pert software (XRD data analysis) Mathematica, Origin, Image J
<b>Languages</b>	Persian (Mother tongue) English (Fluent) German (Elementary)
<b>Publication</b>	<b>ISI Articles</b>
	<b>S. Dadashi, R. Poursalehi and H. Delavari H.</b> Formation, gradual oxidation mechanism and tunable optical properties of Bi/Bi <sub>2</sub> O <sub>3</sub> nanoparticles prepared by Nd:YAG laser ablation in liquid: Dissolved oxygen as genesis of tractable oxidation <i>Materials Research Bulletin</i> 2017, Accepted.
	M Firouzi, R Poursalehi, <b>H Delavari H.</b> , F Saba, MA Oghabian Chitosan coated tungsten trioxide nanoparticles as a contrast agent for X-ray computed tomography <i>International Journal of Biological Macromolecules</i> 98:2017: 479-485
	M. Hasanpoor, M. Aliofkhazraei, <b>H. Delavari H.</b> In-situ study of mass and current density for electrophoretic deposition of zinc oxide nanoparticles <i>Ceramics International</i> , 42:2016:6906–6913
	<b>H. Delavari H.</b> , H.R. Madaah Hosseini and M.Wolff Magnetic domain regime-controlled synthesis of nickel nano-particles by applying statistical experimental design in modified polyol process <i>Materials Chemistry and Physics</i> , 168:2015:117–121
	P. Vahdatkhah, H.R. Madaah Hosseini, A. Khodaei, A.R. Montazerabadi, R. Irajirad, M.A. Oghabian; <b>H. Delavari H.</b> Rapid microwave-assisted synthesis of PVP-coated ultrasmall gadolinium oxide nanoparticles for magnetic resonance imaging <i>Chemical Physics</i> , 453:2015:35-41
	A.R. Montazerabadi, M.A. Oghabian, R. Irajirad, S. Muhammadnejad, D. Ahmadvand, <b>Hamid Delavari H.</b> , Seyed Rabie Mahdavi Development of gold-coated magnetic nanoparticles as a potential MRI contrast agent <i>Nano</i> , 10:2015:1550048
	<b>H. Delavari H.</b> , H.R. Madaah Hosseini and M.Wolff Modeling of self-controlling hyperthermia based on nickel alloy ferrofluids: Proposition of new nanoparticles

*Journal of Magnetism and Magnetic Materials* 335:2013:59–63

**H. Delavari H.**, H. R. Madaah Hosseini, A. Simchi

Effects of particle size, shape and crystal structure on the formation energy of Schottky vacancies in free-standing metal nanoparticles: A model study  
*Physica B*, 406:2011: 3777-3780

**H. Delavari H.**, H. R. Madaah Hosseini, A. Simchi

A simple model for the size and shape dependent Curie temperature of freestanding Ni and Fe nanoparticles based on the average coordination number and atomic cohesive energy  
*Chemical Physics*, 2011, 383:2011:1-5

H. Omid, **H. Delavari H.**, H. R. Madaah Hosseini

Melting enthalpy and entropy of freestanding metallic nanoparticles based on cohesive energy and average coordination number

*The Journal of Physical Chemistry C*, 115:2011:17310–17313

**H. Delavari H.** and M. Kokabi

Silicon Carbide Nanowires from Polyvinyl Alcohol/Silica Electrospun Nanofibers  
*Nano*, 6:2011:41–45

R. Shidpour, **H. Delavari H.**, M. Vossoughi

Analytical Model Based on Cohesive Energy to Indicate the Edge and Corner Effects on Melting Temperature of Metallic Nanoparticles  
*Chemical Physics*, 378:2010:14-18

#### US Patent

Magnetic Separation Device, Application Number: 29615331

#### References

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