
Salomeh Tabatabaei

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Education

Ph.D. in Materials Science and Engineering , <i>Rice University, Houston, TX</i>	2011
M.E. Mechanical Engineering , <i>Rensselaer Polytechnic Institute, Troy, NY</i>	2007
M.S. Metallurgical Engineering , <i>K. N. Toosi University of Technology, Tehran, Iran</i>	2005
B.S. Applied Physics , <i>Amirkabir University of Technology, Tehran, Iran</i>	2001

Work Experience

MD Anderson , Research intern, <i>Houston, TX</i>	June-November 2016
<ul style="list-style-type: none">➤ Development of multi-functional nanoparticles for proton therapy based on theory, mechanism of interaction of proton with living cell and theranostics nanoparticles➤ A detailed investigation and analysis of DNA damage based on secondary electron interaction within living cell	
University of Houston , Visiting scholar, <i>Houston, TX</i>	2014-2015
<ul style="list-style-type: none">➤ Wet chemical synthesis of low temperature solders for high temperature electronics	
Exova Group Limited , Internship, <i>Houston, TX</i>	Summer 2014
<ul style="list-style-type: none">➤ Provided offshore consulting services such as metallurgy, materials testing and failure analysis➤ Administered instructions to technicians and oversaw 20 projects to ensure performance according to the client requirements and deadlines	
Sharif University of Technology , Post-doctoral research associate, <i>Tehran, Iran</i>	2012-2014
<ul style="list-style-type: none">➤ Evaluated various elements on the table of elements to select a new class of lead free solder materials for high temperature electronics	
Board Member of International Standards , <i>Tehran, Iran</i>	2011-2014
<ul style="list-style-type: none">➤ Iran representative: Gathered and evaluated data, determined the next step by communicating and collaborating with other members➤ Invited to weekly meetings to develop nano-indicators	

Teaching Experience

Houston Community College , Adjunct engineering professor, <i>Houston, TX</i>	2015-Present
<ul style="list-style-type: none">➤ Course taught: "Introduction to Engineering", "Engineering Dynamics" and "Statics"	
The University of Texas at Tyler , Adjunct engineering professor, <i>Houston, TX</i>	2015-2016
<ul style="list-style-type: none">➤ Course taught: "Dynamics of Machinery"	
Amirkabir University of Technology , Lectured, <i>Tehran, Iran</i>	2012-2013
<ul style="list-style-type: none">➤ Course taught: "Introduction to materials science and engineering"	
Islamic Azad University Central Branch , Lectured, <i>Tehran, Iran</i>	2012-2013
<ul style="list-style-type: none">➤ Course taught: "Metallurgical Engineering"	
Rice University , Teaching assistant, <i>Houston, TX</i>	2007-2008
<ul style="list-style-type: none">➤ Directed problem solving sessions and grading in "Mechanics of deformed solids"	
Rensselaer Polytechnic Institute , Teaching assistant, <i>Troy, NY</i>	2006-2007
<ul style="list-style-type: none">➤ Co-Instructor in "Engineering dynamics"	

Awards

ICMR Santa Barbara Summer School from NSF Award	2010
Young Scientists from TSRC's Peter Salamon Award	2010
Society of Iranian American Woman for Education Fellowship	2008
Award for best master dissertation	2005

Patents & Selected Publications

- Patent: Wet chemical synthesis of gold-tin alloy nanoparticles as a lead free solder for high temperature electronics (Invention disclosure 2010)
- S.Tabatabaei, S.K. Sadrnezhaad, Facile synthesis of mono-disperse thermally immiscible Ag-Ni alloy nanoparticles at room temperature, Bull. Mat. Sci, 37(6), 1447 (2014)
- S. Tabatabaei, Low-melting nano-size Au-Sn alloy powder as a potential candidate in high temperature electronics joints, Poster presentation, MRS conference, Spring 2013
- S.Tabatabaei, P. M. Ajayan, "Synthesis of AuSn Alloy Nanoparticles with Low Melting Temperature Using Wet Chemical Method", Journal of Microelectronics Reliability, 52(11), 2685 (2012)
- A. Goyal, S.Tabatabaei, P. M. Ajayan " In Situ Synthesis of Metal Nanoparticles Embedded on Free Standing Multifunctional PDMS Film", Macromolecular Rapid Communications, 30, 1116 (2009)
- R. Babazadeh, S.Tabatabaei, "Synthesis & Characterization of Silica Nanoparticles" Solid State Phenomena, 121-123, 49 (2007)
- A. Shokuhfar, S.Tabatabaei, "An Experimental Study on Synthesis & Characterization of Silica Nanoparticles Prepared by Sol-Gel Method", Material Science Forum, 533, 245 (2007)
- S.Tabatabaei, R. Babazadeh, "Experimental Study of Synthesis of Silica Nanoparticles via Sol-Gel Method", Journal of Physics, 26, 371 (2006)

Technical Skills

- **TEM Certificate**, TEM and HRTEM workshop, Materials Energy Research Center
 - Certificate in "solid state strategy in preparation of materials" UCSB summer school, August 2010 novel wet chemistry approaches for synthesis of mono-disperse bi-metallic nanoparticle without ligands for catalysis and electronics applications
 - X-ray techniques, Atomic force microscopy (AFM), Scanning electron microscopy(SEM), Transmission electron microscopy techniques (TEM, HRTEM, HAAD, STEM and GIF), Thermal analysis (DSC & TGA), UV Spectroscopy, Zeta potential, Raman spectroscopy and surface enhanced Raman spectroscopy
 - Leadership certificate in engineering, RPI, May 2007
 - Business and entrepreneurship workshop certificate, Rice University, July 2010
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