

CV



Personal Details:

First Name: Mohammad

Last Name: Moaddeli

Date of Birth: 21 Sep 1985

Country of Origin: Iran

Gender: Male

Marital Status: Married

Contact Information:

Address: No.3, 144 building, 10th alley, Mabas St., Pasdaran Sq, Shiraz, Iran

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Education History:

- Postdoc researcher in [Shiraz University](#), working on perovskite solar cells, started Feb 2019
- PhD of Condensed Matter (Computational) Physics, [Shahid Chamran University of Ahvaz](#), Ahvaz, Iran, May 2016
- Master's degree of Solid State Physics, [Sistan&Baluchestan University](#), Zahedan, Iran, May 2011
- Bachelor' degree of Physics, [University of Birjand](#), Birjand, Iran, December 2007

Skills:

- Programming with MATLAB
- Programming with Python and ASE
- Perfect work with Windows

- Routine use of MS Office Package
- Routine use of ORIGIN
- Work with WIEN2K package
- Expert at Quantum ESPRESSO package
- Work with COMSOL Multiphysics
- Elementary work with ABINIT
- Elementary work with JDFTx
- Routine setup of an HPC

Thesis:

- “Ab-initio study of contact effect of some noble metal nanostructures on graphene”, Thesis for PhD, supervised by Dr. Hamdollah Salehi and advised by Dr. Peiman Amiri, Shahid Chamran University of Ahvaz, May, 2016
- “*Electron relaxation of silver nanoparticles under the ultrashort pulsed laser excitation*”, Thesis for Master of Physics, Supervised by Dr. Majid Rashidi-Huyeh, Sistan & Baluchestan University, May 2010

Publications and Conferences:

Conferences

- “*Electronic and Structural properties of Silver Nano Chain Contacts on Graphene*”, national conference on nanostructures and graphene, Tehran, Iran, May 2015
- “*Nonlinear Optical Response of Ag:SiO₂ Nanocomposite: Influence of Particle Shape*”, 19th Optics and Photonics conference, Zahedan, Iran, January 2013
- “*Intraband transition contribution and dielectric function dynamics of Ag : BaO-B₂O₃-P₂O nanostructure*”, 12th nano graduates conference, May 2012
- “*Contribution of Hot Electron Effect on the Third-Order Nonlinear Optical Susceptibility of Silver-Dielectric Nanocomposite*”, 18th Optics and Photonics conference, Tabriz, Iran, February 2012
- “*Dielectric Function Dynamics of Silver Nanoparticles Embedded in a Dielectric Host Medium Under an Ultrashort Pulsed Laser Excitation: Thermal and Athermal Regimes*”, 17th Annual IASBS Meeting on Condensed Matter Physics, Zanjan, Iran, June 2011
- “*Thermal Dynamics of Silver Nanoparticles: Ballistic-Diffusive Approximation*”, 17th Annual IASBS Meeting on Condensed Matter Physics, Zanjan, Iran, June 2011

- *“Electron dynamics in silver nanoparticles under ultrafast pulsed laser excitation: athermal regime”*, 17th Optics and Photonics conference, Kerman, Iran, February 2011
- *“Thermal response of silver nanoparticles embedded in a dielectric matrix under ultrashort pulsed laser excitation: Influence of particle size and laser pulse power”*, 11th Physics Conference, Hamadan, Iran, September 2010
- *“ Finite Difference Method for Thermal Dynamics of Silver Nanoparticles Under Pulsed Laser Excitation”*, 4th Applied Mathematics Conference, Zahedan, Iran, March 2010

Publications

- Lead sulfide; a new candidate for optoelectronics applications in the ultra violet spectral range, **Mater. Res. Express**, 6, 116220, (2019)
- Noble Metal Chain Adsorption on Graphene Sheet, **Surface Science**, 647, 96, (2016)
- Physisorption mechanism in graphene/noble metal (111)/Ni(111) heterostructures: An ab-initio study, **Journal of Applied Physics**, 120, 075301, (2016)

Experimental background:

- *“High Performance Computing”*, Workshop, IMP, Iran, December 2014
- *“2D systems”*, School, Tabriz, Iran, May 2014
- *“Optics/Thermal in Nanostructures”* national workshop, Zahedan, Iran, March 2012
- *“Optics/Thermal in Nanostructures”* national workshop, Zahedan, Iran, March 2011
- *“TEA N₂ LASER”*, as a research work for Bachelor of Physics, Supervised by Mr. Sh. Mohammadi, Birjand University, January 2007

Teaching and training Experience

- Fundamentals of Physics (course and lab), BSc students, Shahid Chamran University of Ahvaz, 2012-2014
- Solid states of Physics, Jahrom University, 2015
- Fundamentals of physics, Sistan & Baluchestan University, 2011
- Fundamentals of physics (course and lab), and Modern Physics, Pasargad HEI, 2011 up to now
- Quantum ESPRESSO workshop, Fasa University, October 2015
- Quantum ESPRESSO workshop, Shiraz University, May 2019

Personal Interests:

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