

## Curriculum Vitae

### Jamileh Seyed Yazdi

#### Contact Information

Department of Physics, Vali-e-Asr University of Rafsanjan, Iran.

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#### Current Position:

Associate Professor Position in Physics (Condensed Matter).

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#### Education:

Iran University of Science and Technology (IUST), PhD in Solid State Physics, January **2009**, thesis title: "Investigation of structure of water and ice in nanometric confined geometries by neutron diffraction", supervisor: Prof. H. Farman, tutors: Prof. J. Dore (University of Kent, Canterbury, UK), Dr. J.B.W. Webber (University of Kent, Canterbury, UK), Dr. W. A. B. Evans (University of Kent, Canterbury, UK).

Shiraz University, Master of Science in Physics, September **2000**, thesis title: "Interacting electron gas and density functional theory", supervisor: Prof. M. Moradi.

Ferdowsi University of Mashhad, B.Sc. in Physics, September **1997**.

Virginia Commonwealth University (VCU), Master of Science in Chemistry, December **2011**, thesis title: "Wetting transitions at nanostructured surfaces", supervisor: Prof. A. Luzar, tutor: Prof. D. Bratko, GPA: 4.00.

Universiteit van Amsterdam, AtoSiM Master Degree in Science, **2007**.

Universita' degli Studi di Roma 'La Sapienza', AtoSiM Master Degree in Science, **2007**, thesis title: "Nonequilibrium Molecular Dynamic Simulation: the case of Inter-diffusion", supervisors: Prof. G. Ciccotti, Prof. C. Pierleoni.

École normale supérieure de Lyon (ENS), AtoSiM Master Degree in Science, **2007**.

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#### Scholarships, Fellowships and Awards:

Iranian Ministry of Science and Technology, (IUST) 2004-2005.

British Council Scholarship, (IUST) 2004.

Erasmus Mundus Scholarship, 2006-2007.

Altria (Philip Morris) Research Support (VCU) 2010.

Lidia M. Vallarino Scholarship (VCU) 2010.

Outstanding Teaching Assistant Award (VCU) 2011.

Global Ambassador Scholarship (VCU) 2011.

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## Bibliometric Details

i10-index: 12; h-index: 11; citations: 274 (Source: google scholar citations, October 2021).

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## Teaching Experience

Thermodynamics, Statistical Physics, Quantum Mechanics (I, II), Advanced Solid State Physics, Advanced Statistical Mechanics, Computational Physics, Advanced Condensed Matter Physics, Magnetism and Superconductivity, Nano-magnetism.

## Professional Experiences

Participating in neutron diffraction measurements, Institut Laue Langevin, Grenoble, **France**, 2005.

Attending "School on Pulsed Neutron Sources", ICTP, Trieste, **Italy**, 2005.

Attending "Quantum Simulation of Liquids & Solids" (BGFM, VASP, CPMD) CECAM, Lyon, **France**, 2006.

Attending "General Introduction to Simulation Methods", CECAM, Lyon, **France**, 2006.

Attending "Understanding Molecular Simulation", (Frenkel & Smit), Amsterdam, **Netherlands**, 2007.

Attending "College on Water in Physics, Chemistry and Biology", ICTP, Trieste, **Italy**, 2007.

Attending "Workshop on Monte-Carlo Simulation", Sharif University of Technology, Tehran, **Iran**, 2007.

Attending "PWSCF Computational Code (espresso)", Isfahan University of Technology, **Iran**, 2007.

Participating in "Spin-echo experiment in Helmholtz-Zentrum Berlin", Berlin, **Germany**, 2009.

Attending "Faraday Discussion Graduate Research Seminar", Richmond, VA, **United States**, 2010.

Attending "Advanced School on Graphene and Its Optoelectronic Devices", Tabriz, **Iran**, 2013.

Advanced "School on Recent Progress in Strongly Correlated Systems", Tehran, **Iran**, 2013.

Attending "Advanced Mini-workshop on Recent Progress on Graphene", Kish Island, **Iran**, 2014.

Attending "Advanced School on 2D Systems: Semiconductors to New 2D Materials", Tabriz, **Iran**, 2014.

Attending "Introduction to Carbon Science and Engineering", Vali-e-Asr University of Rafsanjan, 2014.

Attending "School on Emergent Quantum Phenomena in Graphene", Sharif University, **Iran**, 2015.

Attending "Annual Meeting on Low Dimensional Systems", Tabriz, **Iran**, 2015.

Attending "Workshop on Water at the Interface between Biology, Chemistry, Physics and Material Sciences", ICTP, Trieste, **Italy**, 2015.

Attending "Career Development Workshop on Women in Physics", ICTP, Trieste, **Italy**, 2015.

Attending "International School on Application of Nanomaterials in Medicine", Sharif University of Technology, Tehran, **Iran**, 2016.

Attending "Conference on Signatures of Topology in Condensed Matter", ICTP, Trieste, **Italy**, 2019.

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## Journal Articles

- [24] F Ebrahimi-Tazangi, [J SeyedYazdi](#), H Hekmatara; " $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>@CoFe<sub>2</sub>O<sub>4</sub>/GO nanocomposites for broadband microwave absorption by surface/interface effects", *J. Alloys Compd*, Accepted (2022).
- [23] F Irannezhad, [J SeyedYazdi](#), H Hekmatara, "Electrochemical sensing platform for simultaneous detection of 6-mercaptopurine and 6-thioguanine using RGO-Cu<sub>2</sub>O/Fe<sub>2</sub>O<sub>3</sub> modified screen-printed graphite electrode", *J. Electrochem. Sci. Eng.*, (2021) Accepted.
- [22] M Norouzi, [J SeyedYazdi](#); "Induced superconductivity in linear carbon chains and engineering of zero-bias peaks with geometric angles: a new approach", *Phys. Script.*, 96(4) (2021) 045806.
- [21] F Ebrahimi-Tazangi, H Hekmatara, [J SeyedYazdi](#); "Remarkable microwave absorption of GO-SiO<sub>2</sub>/Fe<sub>3</sub>O<sub>4</sub> via an effective design and optimized composition", *J. Alloys Compd*, 854 (2021) 157213.
- [20] F Ebrahimi-Tazangi, H Beitollahi, H Hekmatara, [J SeyedYazdi](#); "Design of a new electrochemical sensor based on the CuO/GO nanocomposites: simultaneous determination of Sudan I and bisphenol A", *J. Iran. Chem. Soc.*, 18 (2021) 191-199.
- [19] M Shamsadding Saeed, [J SeyedYazdi](#), H Hekmatara, "Surface modification of MWCNT with cluster form of Fe<sub>2</sub>O<sub>3</sub>/Fe<sub>3</sub>O<sub>4</sub> NPs for improving their microwave absorption performance", *Chem., Phys. Lett.*, 756 (2020) 137823.
- [18] M Shamsadding Saeed, [J SeyedYazdi](#), H Hekmatara, "Fe<sub>2</sub>O<sub>3</sub>/Fe<sub>3</sub>O<sub>4</sub>/PANI/MWCNT nanocomposite with the optimum amount and uniform orientation of Fe<sub>2</sub>O<sub>3</sub>/Fe<sub>3</sub>O<sub>4</sub> NPs in polyaniline for high microwave absorbing performance", *Journal of Alloys and Compounds*, 843 (2020) 156052.
- [17] F Ebrahimi-Tazangi, H Hekmatara, [J SeyedYazdi](#); "Synthesis and remarkable microwave absorption properties of amine-functionalized magnetite/graphene oxide nanocomposites", *Journal of Alloys and Compounds*, 809 (2019) 151779.
- [16] S Saeedirad, [J SeyedYazdi](#), H Hekmatara; "Decorating untreated carbon nanotubes with Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub> nanoparticles and its microwave absorption property", *Journal of Alloys and Compounds*, 793 (2019) 590-598.
- [15] M Dehghani-Dashtabi, H Hekmatara, [J SeyedYazdi](#); "Highly magnetic nanocomposites consist of magnetite nanoparticles, graphene oxide and hyper-branched poly citric acid", *Materials Chemistry and Physics* 224 (2019) 271-278.
- [14] M Dehghani-Dashtabi, H Hekmatara, [J SeyedYazdi](#); "Synthesis and improved photoactivity of magnetic quaternary nanocomposites consisting of Fe<sub>3</sub>O<sub>4</sub>@ZnO core@shell nanoparticles decorated on graphene-oxide grafted poly-citric acid", *Physica B*, 553 (2019) 11-17.
- [13] M Darvishi, F. Jamali-Paghaleh, M. Jamali-Paghaleh, [J SeyedYazdi](#); "Facile synthesis of ZnO/rGO hybrid by microwave irradiation method with improved photoactivity", *Surfaces and Interfaces*, 9 (2017) 167-172.
- [12] M Stamenova, R Mohebbi, J SeyedYazdi, I Rungger, S Sanvito; "First-principles spin-transfer torque in CuMnAs|GaP|CuMnAs junctions", *Physical Review B*, 95 (2017) 060403R.
- [11] M Darvishi, Gh. Mohseni-Asgerani, [J SeyedYazdi](#); "Simple microwave irradiation procedure for the synthesis of CuO/Graphene hybrid composite with significant photocatalytic enhancement", *Surfaces and Interfaces*, 4 (2017) 69-73.
- [10] M Darvishi, M. Jamali-Paghaleh, F. Jamali-Paghaleh, [J SeyedYazdi](#); "Two Methods Microwave Irradiation Synthesis of TiO<sub>2</sub>/ZnO/Graphene Ternary Hybrids with Enhanced Photocatalytic Activity", *Materials Research Express*, 4 (2017) 016501.

- [9] M Darvishi, [J. SeyedYazdi](#); "Effect of Microwave Power on Created Defects in Graphene Sheet of Synthesized TiO<sub>2</sub>/Graphene Nanocomposite with Enhanced Photocatalytic Performance", *Surfaces and Interfaces*, 4 (2016) 1-8.
- [8] M Darvishi, [J. SeyedYazdi](#); "Characterization and comparison of photocatalytic activities of prepared TiO<sub>2</sub>/graphene nanocomposites using titanium butoxide and TiO<sub>2</sub> via microwave irradiation method", *Materials Research Express*, 3 (2016) 085601.
- [7] R Mohebbi, [J. SeyedYazdi](#); "The effect of Different Electrodes on the Electronic Transmission of Benzene Junctions: Analytical Approach" *Physica B*, 490 (2016) 42-45.
- [6] R Mohebbi, [J. SeyedYazdi](#); "Electronic Transmission of Benzene Metallic Junctions: Reliability Range of Perturbation Values"; *Scientia Iranica* 22 (2015) 2752-2756
- [5] [J. Seyed-Yazdi](#), John Dore, J Beau Webber; "Overall investigation of the behaviour of water/ice in almost and partially filled nanopores of SBA-15 silica by neutron diffraction technique" *Scientia Iranica F* 22 (2015) 1357-1362.
- [4] [J. Seyed-Yazdi](#), John Dore, J Beau Webber, H Farman; "Structural characterisation of water and ice in mesoporous SBA-15 silicas IV: Partially-filled cases for 86 Å pore diameter"; *J. Phys.: Condens. Matter* 25 (2013) 465105.
- [3] J Ritchie, [J. SeyedYazdi](#), D Bratko, A Luzar; "Metastable Sessile Nanodroplets on Nanopatterned Surfaces", *J. Phys. Chem. C* 116 (2012) 8634-8641.
- [2] [J. Seyed-Yazdi](#), H Farman, John Dore, J Beau Webber, G H Findenegg and T H Hansen; "Structural characterisation of water and ice in mesoporous SBA -15 silicas II: The 'almost filled' case for 86 Å pore diameter", *J. Phys.: Condens. Matter* 20 (2008) 205107.
- [1] [J. Seyed-Yazdi](#), H Farman, John Dore, J Beau Webber, G H Findenegg; "Structural characterisation of water/ice formation in SBA-15 silicas III: The triplet profile for 86 Å pore diameter"; *J. Phys.: Condens. Matter* 20 (2008) 205108.

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## Awarded best poster presentations

- [1] Awarded the best poster prize for "The First Computational Physics Conference", Shahid Rajaee University, Tehran, **2013**.
- [2] Awarded the best poster prize for "20<sup>th</sup> Optics and Photonics Conference", Shiraz Institute of Technology, **2013**.
- [3] Awarded the best poster prize for "Graphene and Nanostructures Conference", Tehran, **2015**.
- [4] Awarded the best poster prize for "Annual Physics Conference", Shiraz University, **2016**.
- [5] Awarded the best poster prize for "9<sup>th</sup> Condensed Matter Conference", Shahid Chamran Ahwaz University, **2018**.

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## Supervising Master Theses and Doctoral Dissertations (Selected)

- [1] Razie Mohebbi, Dissertation Title: "The Study of Spin Transfer Torque in Magnetic Tunnel Junctions and Electronic Transmission of Benzene Junctions", Defense: March, **2017**.
- [2] Fatemeh Ebrahimi-Tazangi, Dissertation Title: "Investigation of sensing and microwave absorption capability of graphene oxide/metal oxides based nanocomposites", Defense: September, **2021**.

- [3] Motahareh Darvishi, Thesis Title: “Structural characterization of “Graphene (G) and G/TiO<sub>2</sub> synthesized by microwave method with enhanced photocatalytic performance”, Defense: October, **2015**.
- [4] Zohreh Amiri, Thesis Title: “Synthesis of Few-Layer Graphene with Laser and Liquid Phase Exfoliation Methods”, Defense: March, **2015**.
- [5] Elaheh Hojjati, Thesis Title: “Study of Structural and Electronic Properties of Graphene Sheet, Graphene/Zinc-Oxide Hybrid and H<sub>2</sub>S Molecule Adsorption Effect on These Structures by Density Functional Theory”, Defense: March **2016**.
- [6] Nasrin Zekavatfalak, Thesis Title: “Study of Structural and Electronic Properties of Graphene/Titanium Dioxide (TiO<sub>2</sub>/G) and Graphene/Cadmium Sulfide (CdS/G) Hybrids by Density Functional Theory”, Defense: March **2016**.
- [7] Ghafar Mohseni Asgerani, Thesis Title: “Structural characterization of CuO/Graphene hybrid synthesized by microwave irradiation method and investigation of its photocatalytic performance”, Defense: July, **2016**.
- [8] Mina Jamali-Paghaleh, Thesis Title: “Structural Characterization of Graphene/ZnO/TiO<sub>2</sub> Hybrid Synthesized by Microwave Irradiation Method and Investigation of Its Photocatalytic Performance”, Defense: September, **2016**.
- [9] Fatemeh Jamali-Paghaleh, Thesis Title: “Synthesis and Characterization of Zinc-Oxide/Graphene Hybrid (ZnO/G) with Microwave Irradiation Method and Investigation of Its Photocatalytic Performance”, Defense: September, **2016**.
- [10] Afrasyab Pouramiri, Thesis Title: “Study of Structural and Electronic Properties of Graphene/Copper-Oxide (CuO/G, Cu<sub>2</sub>O/G) Hybrid by Density Functional Theory”, Defense: February, **2017**.
- [11] Fatemeh Shirvani, Thesis Title: “Synthesis and Characterization of Iron-Oxide/Reduced Graphene-Oxide (RGO) Hybrid and Investigation of Its Photocatalytic Performance”, Defense: November, **2017**.
- [12] Mahdieh Dehghani-Dashtabi, Thesis Title: “Synthesis and Characterization of Ironoxide/Zincoxide/Graphene\_oxide/Polymer nanocomposite”, Defense: September **2018**.
- [13] Nazanin Morovvat Nezhad, Thesis Title: “Synthesis and Characterization of Reduced Graphene oxide/Ironoxide/Titanium Dioxide Ternary Compound”, Defense: September **2018**.
- [14] Fatemeh Irannezhad, Thesis Title: “Synthesis and Characterization of Reduced Graphene oxide/Ironoxide/Cupper Oxide Ternary Compound and investigation of its photocatalytic activity and microwave absorption properties”, Defense: January **2019**.
- [15] Mohaddeseh Soltani, Thesis Title: “Synthesis and Characterization of Iron-oxide/Nickel-oxide/Graphene-oxide nanocomposites”, Defense: September **2019**.
- [16] Somayeh Eslamjou, Thesis Title: “Synthesis and Characterization of Iron-oxide/Nickel-Ferrite /Graphene-oxide nanocomposites”, Defense: September **2019**.
- [17] Alireza Karamad, Thesis Title: “Synthesis and characterization of copper oxide/graphene oxide/titanium dioxide nanocomposites”, Defense: October **2021**.