

CURRICULUM VITAE

September 30, 2020

Yavar Mohammadi

Department of Physics

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Kermanshah, Iran

Nationality: Iranian

Professional Experiences

Assistant Professor

Department of Physics, Farhangian University, Shahid Sadoughi Campus

Education

Ph.D. Physics, Razi University, Kermanshah, Iran, 2009

Advisor: Prof. Dr. RostamMoradian

Thesis Title: Investigation of gas sensing properties of zigzag single-walled carbon nanotubes and armchair graphenenanoribbons

M.Sc. Physics, Razi University, Kermanshah, Iran 2005

Advisor: Prof. Dr. RostamMoradian

Thesis Title: Investigation of magnetic properties of diluted magnetic semiconductor

B.S. physics, Razi University, Kermanshah, Iran, 2002

Professional Activities

Referee for International Journal of Modern Physics B

Referee for International Nano Letters

Research Interests

Main field: Condensed matter theory

Current focus: Electric, Magnetic and Thermal Properties of Graphene and other two dimensional materials

Computer Skills

Program languages: Extensive experience with FORTRAN.

Density functional theory software: Elementary experience with WIEN2k

Language:

English (good)

Publications

- 16 **Yawar Mohammadi**, Integer quantum Hall Effect in AAA-stacked Trilayer grapheme, arXiv. 1912.00823.
- 15 **Yawar Mohammadi** and Marzban Adib Manesh, Content analysis of the tenth grade physics textbook in the field of mathematics and physics using Merrill's component theory, Sociology of Education Journal, **12**, 80 (2020).
- 14 **Yawar Mohammadi**, Photo-induced spin and valley-dependent Seebeck effect in the low-buckled Dirac materials, Solid State Commun. **272**, 37 (2018).
- 13 **Yawar Mohammadi**, Photo-induced spin and valley-dependent Seebeck effect in the low-buckled Dirac materials, Solid State Commun. **272**, 37 (2018).
- 12 **Yawar Mohammadi** and Borhan Arghavani Nia, Controllable photo-induced spin and valley filtering in silicene, Superlattices and Microstructures (2016).
- 11 **Yawar Mohammadi** and Borhan Arghavani Nia, Strain engineering the charge-impurity-limited carrier mobility in phosphorene, Superlattices and Microstructures **89**, 204 (2016).
10. **Yawar Mohammadi** and Borhan Arghavani Nia, Controllable intrinsic DC spin/valley Hall conductivity in ferromagnetic silicene: Exploring a fully spin/valley polarized transport, Superlattices and Microstructures **88**, 442 (2015). DOI:10.1016/j.spmi.2015.10.006.

9. **Yawar Mohammadi**, Comment on "Dielectric screening and plasmons in AA-stacked bilayer graphene", arXiv. 1410.1027
8. **Yawar Mohammadi**, and Rostam Moradian, RKKY interaction in bilayer grapheme, *J. Magn. Magn. Mater.* **396**, 121 (2015). DOI:10.1016/j.jmmm.2015.07.094.
7. **Yawar Mohammadi**, Charge screening and carrier transport in AA-stacked bilayer graphene: Tuning via a perpendicular electric field, *Solid State Commun.*, **202**, 14 (2015). DOI:10.1016/j.ssc.2014.10.032
6. **Yawar Mohammadi** and Borhan ArghavaniNia, Electronic properties of grapheme nanoribbons with AA-stacking order, *Solid State Commun.* **201**, 76 (2015). DOI:10.1016/j.ssc.2014.10.008.
5. **Yawar Mohammadi**, Rostam Moradian and Farzad Shirzadi Tabar, Effects of doping and bias voltage on the screening in AAA-stacked trilayer graphene, *Solid State Commun.* **193**, 1 (2014). DOI:10.1016/j.ssc.2014.05.012.
4. **Yawar Mohammadi** and RostamMoradian, Magnetism of an adatom on biased AA-stacked bilayer graphene, *Physica B: Condensed matter*, **442**, 66 (2014). DOI:10.1016/j.physb.2014.02.010.
3. **Yawar Mohammadi** and RostamMoradian, Local Moment formation in bilayer graphene, *Solid State Commun.* **178**, 37, (2014). DOI:10.1016/j.ssc.2013.10.021.
2. Rostam Moradian, **Yawar Mohammadi** and Nader Ghobadi, Investigation of gas sensing properties of armchair grapheme nanoribbons, *J. Phys. : Condensed matter*, **20**, 425211 (2008). DOI:10.1088/0953-8984/20/42/425211.
1. Rostam Moradian and **Yawar Mohammadi**, Finite-concentration gas molecule adsorption on carbon nanotubes investigated by a tight-binding approach, *Phys. Rev. B*, **76**, 155432 (2007). DOI:10.1103/PhysRevB.76.155432.

Presentations and Posters:

1. 4th student nanotechnology conference, Razi University, Kermanshah, Iran, (Sep. 9th 2008), *Investigation of gas sensing properties of zigzag single-walled carbon nanotubes.*
2. Annual Physics Conference of Iran, International University, Qazvin, Iran, (August 2018), *Tuning of optical polarization in phosphorene by strain.*