AMIRHOSSEIN BAYANI

CONTACT



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amirhossein.bayani@gmail.com

CORE QUALIFICATIONS

- Computational Material Science:
- Solar Cells; Semiconductors; Field Effect Transistors
- Computer Skills:
- Windows, Linux and Virtual Machines
- HTML, CSS, Javascript, Python
- Microsoft Word/ Power point/ Excel
- Origin & Qtiplot Software
- QuantumATK & Virtual NanoLab (VNL)
- VASP simulation package
- Writing scientific paper
- Familiar with: Quantum Espresso simulation package; Silvaco TCAD; COMSOL Multi-Physics

REFERENCES

Dr. Daniel Urban, Fraunhofer IWM, Freiburg, Germany. Email: daniel.urban@iwm.fraunhofer.de. Telephone: +49-761-5142-378 Dr. Daryoosh Dideban, University of Kashan, Kashan, Iran. Email: dideban@kashanu.ac.ir. Telephone: +98-913-3617054 Dr. Jan Voves, CTU in Prague, Czech Republic. Email: voves@fel.cvut.cz, Telephone: +420-603-761634

Results-driven Material Scientist with a decade of experience specializing in simulation and modelling. Expertise in Nanoelectronics Engineering and Solid-State Physics, driving innovative solutions at the forefront of scientific advancements. A creative thinker who consistently pushes boundaries and delivers tangible results

EXPERIENCE

July 2021 - July 2023

Scientific Researcher Fraunhofer Institute for Mechanics of Materials IWM, Freiburg, Germany

- Computational modelling of surface and interface of Perovskite Solar Cell and electron/hole transport layers using density functional theory (DFT) and method beyond DFT
- Studying the point defects in semiconductors and Perovskite materials

September 2018 - September 2020

Postdoc Researcher Angstrom Lab, Uppsala University, Uppsala, Sweden

- Simulation of Au intercalation on SiC/Graphene using DFT
- Studying the spin-orbit coupling effect on Graphene/Au

EDUCATION

August 2023 – now

Full Stack Software Developer student at Code Institute

September 2017

Ph.D. Nanotechnology University of Kashan, Iran

• Analysis of Electrical Characteristics and Investigation of Sensing Properties of Nanoscale Transistor based on Germanium using DFT+NEGF.

July 2017

Visiting researcher

Czech Technical University, Prague, Czech Republic

January 2013

M.Sc. Physics (Solid State Physics)

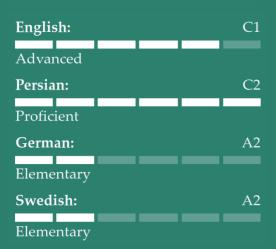
Ferdowsi University of Mashhad, Mashhad, Iran

• Studying the Electronic properties of boron nitride nanotubes in the presence of hydrogen adsorption

ADDITIONAL INFORMATION

- Linkedin:
 <u>http://www.linkedin.com/in/amirh</u>
 <u>osseinbayani</u>
- Github: <u>https://github.com/teman67</u>
- Orcid: https://orcid.org/0000-0002-7892-3513

LANGUAGES



August 2010

B.Sc Physics

Ferdowsi University of Mashhad, Mashhad, Iran

INTERESTS

- Following Tech News and Trends
- Playing Chess and Volleyball
- Cycling and Travelling
- Reading Books
- Watching Movies and Series