



Vahid Barough Miandoab

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 Department of Physics, Shahid Beheshti university, Tehran, Iran

Marital status

- Married

Languages

- Turkish - Native
- Persian - Native
- English

Research Interest

- 2D materials synthesis
- Hydrogen production
- Batteries
- Magnetoelectrics

Hobbies



Skill Highlights

- Photolithography
- Magnetotransport measurements (GMR, GMI)
- (AC/DC) magnetron sputtering
- Hydrothermal
- Magneto-optical Kerr effect measurement
- Matlab
- Comsol



Education

- 2014-2017** • **M.Sc., Solid State Physics**, Department of Science, **Tarbiat Modares University**.
Thesis: Synthesis of molybdenum diselenide (MoSe₂) nanostructures and its electrocatalytic properties studies
Supervisor: Dr. Esmail Saeivar Iranizad
Grade: 83.3 /100
- 2007-2012** • **B.Sc., Solid State Physics**, Department of Science, **Payameh Noor University**.
Grade: 75.05/100



Experience

- 2015-2017** • **Researcher in the field of energy generation (Hydrogen Production)**
Nanophysics group, Department of science, Tarbiat Modares university.
- 2018-Present** • **Researcher in the field of Magnetoelectrics**
Nanophysics and spintronics group, Shahid Beheshti university.



Publication

- Aug 2018** • **Synthesis of binder-free MoSe₂ nanoflakes as a new electrode for electrocatalytic hydrogen evolution.**
Vahid Barough, Esmail Saievar Iranizad*, Amir Bayat, Khadijeh Hemmati
(Link: <https://doi.org/10.1016/j.jelechem.2018.06.022>)
Journal of Electroanalytical Chemistry. 15;823:278-86.
- Dec 2016** • **The effect of concentration and time of hydrothermal process on the fluorescent property of Molybdenum Diselenide nano-layers**
Vahid Barough Miandoab, Esmail Saievar Iranizad*, Hemmati Kahrade
(Link: http://jopn.miau.ac.ir/article_2192.html)
Journal of Optoelectrical Nanostructures. 15;1(3):35-42.



Proceeding

August 2016

Synthesis and investigation of optical properties of two-dimensional molybdenum diselenide (MoSe₂) layers using hydrothermal method

Baroogh Miandoab, Vahid; Saievar Iranizad, Esmail* ; Bayat Amir
(link: <http://www.psi.ir/upload/1395/physics95/pages/proceedings.asp>)
Annual physics Conference of Iran, Shiraz University.

October 2016

Investigation the effect of concentration and time of hydrothermal process on the fluorescence characteristic of MoSe₂ nano layers

Vahid Baroogh Miandoab, Esmail Saievar Iranizad *, Khadijeh Hemmati Kahradeh
The Second NANO Physics and Metamaterials Conference from Simulation to Industry, Iran, Fasa University.



Manuscript In Progress

Magnetoionic control of impedance in bulk magnetic materials with high permeability
(is going to submit to Applied Physics Letter)

Facile synthesis of MoSe₂ nanoflakes for Humidity and breath sensor.

Ionic gate for magnetic materials and it's characterization by AMR.



Teaching

2018-2019

Teaching Assistant, Electronics (I) Lab, (graduate). Department of Physics, Shahid Beheshti University.

2019-2021

Teaching Assistant, Solid State Physics Lab, (graduate). Department of Physics, Shahid Beheshti University.



References

S. Majid Mohseni.

Associate Prof. at Department of Physics, Shahid Beheshti University

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