Hamidreza Ali Jouypazadeh

hamideza_jouypazadeh@ysu.am

Նյութագիտության և նանոտեխնոլոգիաների գիտական կենտրոն
Հաշվարկային նյութագիտության լաբորատորիա
Junior Researcher

Research Institute of Physics
Նյութագիտության և նանոտեխնոլոգիաների գիտական կենտրոն
Հաշվարկային նյութագիտության լաբորատորիա
Junior Researcher

Education

Faculty	Faculty of Science/Department of Chemistry
Date	2012 - 2016
Degree name	PhD student

Faculty	Faculty of Science/Department of Chemistry
Date	2009 - 2012
Degree name	Masters

Faculty	Faculty of Science/Department of Chemistry
Date	2004 - 2009
Degree name	Bachelor

Scientific Rank/degree

Date	2016
Degree name	Candidate
Scientific Supervisor	Prof. Mohammad Solimannejad
Research Topic	Ab intio intermolecular potential energy surfaces for complexes pairing linear molecules with rare gases

Language skills

English فارسی

Work experience

Institution	Yerevan State University
Period of time	2025 till now

Rank/degree	Junior Researcher

Institution	Isfahan University of Technology
Period of time	2023 - 2024
Rank/degree	Lecturer

Institution	Isfahan University of Technology
Period of time	2021 - 2024
Rank/degree	researcher

Institution	Isfahan University of Technology
Period of time	2018 - 2021
Rank/degree	Postdoc Researcher

Institution	Isfahan University of Technology
Period of time	2016 - 2018
Rank/degree	Research Assistant

Publications

Article

Para methyl red dye complexation with the (100) and (111) TaON and (101) TiO2 monolayer nanosheets for dye-sensitized solar cell application: periodic and non-periodic DFT calculations

Hamidreza Jouypazadeh, Hossein Farrokhpour

Journal of the Iranian Chemical Society 2026 30

https://link.springer.com/article/10.1007/s13738-025-03310-z

Article

Optoelectronic and Photovoltaic Insights into C2N/Dye Interfaces for Efficient Solar Energy Conversion: A Theoretical Study

Nasim Korivand, Hossein Farrokhpour, Akbar Omidvar, Hamidreza Jouypazadeh

The Journal of Physical Chemistry C 2026 5341 - 5361

https://doi.org/10.1021/acs.jpcc.5c08761

Article

A comparative DFT evaluation of the photocatalytic activity and NLO properties of monolayer two-dimensional M3X4 (M = C, Si, Ge; X = N, P, As) quantum dots

Hossein Farrokhpour, Ashkan Riahi, Hamidreza Jouypazadeh

New Journal of Chemistry 2025 17131-17148

Article

Cable bacteria-inspired Hemin-Nickel coordination polymers with carbon nanotubes for enhanced oxygen evolution

Kimia Zarean Mousaabadi, Marcel Ceccato, Hamidreza Jouypazadeh, Lars Peter Nielsen,

Ian P.G. Marshall, Kim Daasbjerg

Electrochimica Acta 2025 147484

Article

Enhancing ZnO monolayer nanosheets for photocatalysis: the role of FeSn and RuSn (n = 0-3) doping in electronic and structural properties
Hamidreza Jouypazadeh, Esmail Vessally

New Journal of Chemistry 2024 13557-13565

Article

Improving Photocatalytic activity of (100) and (111) TiO2 nanosheets by coupling with ZrO2 and HfO2 nanosheets; A DFT-U study
Suzan Mohammadi, Mohammadreza Mozdianfard, Hamidreza Jouypazadeh,

Mohammad Es'hagh-Davatgar

Journal of Physics and Chemistry of Solids 2024 111952

Article

The Effect of Doping TiO2 Monolayer with Sn+4, Pb+4, and S-2 Ions on H2 Production by Photocatalytic Water Splitting: Periodic DFT Modeling
Nasim Orangi, Hossein Farrokhpour, Hamidreza Jouypazadeh, Fahimeh Eshaghzadeh

Iranian Journal of Science 2024 1351-1364

Article

The adsorption of sulfur mustard chemical warfare agent on the Ga12N12 and Ca12O12 nanocages; A systematic DFT study
Hamidreza Jouypazadeh, Hossein Farrokhpour, Esmail Vessally

Computational and Theoretical Chemistry 2023 114358

Article

Theoretical study of the mechanism of Te (g) + 3F2 (g)→TeF6 (g)
Fatemeh Hosseini, Hassan Hadadzadeh, Hossein Farrokhpour, Hamidreza Jouypazadeh

Molecular Physics 2022 e2059411

Article

Be2C monolayer as an efficient adsorbent of toxic volatile organic compounds: theoretical investigation
Hossein Farrokhpour, Mehrdad Gerami, Hamidreza Jouypazadeh

Molecular Physics 2022 e2132184,14

Article

Water-vapochromic behavior of a mononuclear Pd(II) complex of piroxicam: A DFT and TD-DFT study
Hamidreza Jouypazadeh, Hossein Farrokhpour, Maedeh Karbasizadeh, Hassan Hadadzadeh

Journal of Molecular Graphics and Modelling 2021 107773

Article

Theoretical investigation of the water splitting photocatalytic properties of pristine, Nb and V doped, and Nb-V co-doped (1 1 1) TaON nanosheets
Hamidreza Jouypazadeh, Hossein Farrokhpour, Mohamad Mohsen Momeni

Applied Surface Science 2021 148572

Article

Theoretical study of the vapochromic properties of a mononuclear Pd(II) complex with piroxicam ligands for the detection of the vapor of several solvents

Hossein Farrokhpour, Hamidreza Jouypazadeh, Maedeh Karbasizadeh

Journal of Molecular Liquids 2021 116508

Article

Pd/Cu-Free Cobalt-Catalyzed Suzuki and Heck Using Green Bio-Magnetic Hybrid and DFT-Based Theoretical Study

Abdol R. Hajipour, Zahra Khorsandi, Mehnoosh Ahmadi, Hamidreza Jouypazadeh, Bahareh Mohammadi, Hossein Farrokhpour

Catalysis Letters 2021 2842–2850

Article

A DFT study of the water-splitting photocatalytic properties of pristine, Nb-doped, and V-doped Ta3N5 monolayer nanosheets

Hamidreza Jouypazadeh, Hossein Farrokhpour,, Mohamad Mohsen Momeni

Surfaces and Interfaces 2021 101379

Article

Interaction of different types of nanocages (Al12N12, Al12P12, B12N12, Be12O12, Mg12O12, Si12C12 and C24) with HCN and ClCN: DFT, TD-DFT, QTAIM, and NBO calculations

Hossein Farrokhpour, Hamidreza Jouypazadeh, Shirin Vakili Sohroforouzani

Molecular Physics 2020 1626506

Article

The Role of Delocalization Energy on Superhalogen Property: The Electron Affinity of

Dr. Hossein Farrokhpour, Mostafa Yousefvand, Dr. Hassan Hadadzadeh, Dr. Hamidreza Jouypazadeh

ChemistrySelect 2020 3859-3873

Article

Theoretical insights into the electron affinity of manganese superhalogen compounds; NBO, QTAIM and energy decomposition analysis

H. Farrokhpour, M. Yousefvand, H. Hadadzadeh, H. Jouypazadeh

Molecular Physics 2020 1718791

Article

Electron affinities of X12O12 (X = Be, Mg, and Ca), X12N12 (X = B, Al, and Ga), and X12P12 (X = B, Al, and Ga) nanocages: NBO calculations and energy decomposition analysis

H. Farrokhpour, M. Yousefvand, H. Jouypazadeh, H. Hadadzadeh

The European Physical Journal Plus 2020 719
