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Education

- ✓ B.Sc, Physics, Ferdowsi University of Mashhad - 1990
- ✓ MS, Physics - Astrophysics, Shahid Bahaonar University of Kerman - 1997
- ✓ PhD, Nanosciences and Technology - Nanophysics, University of Pune - 2006

Courses

- | | |
|------------------------------------|--|
| 1. Physics 1 | 2. Basic Physics 1 |
| 3. Basic Physics 2 | 4. Introduction Astro Physics |
| 5. Physics Laboratory 1 | 6. Technical English |
| 7. Seminar | 8. Project |
| 9. Laboratory of Nanophysics 1 | 10. Physics 2 |
| 11. Nanoparticles and Applications | 12. Advanced Solid State Laboratory1 |
| 13. Quantum Mechanics2 | 14. Thermodynamics and Statistical Mechanics |
| 15. Quantum Mechanics1 | 16. Physics of Thin Films |
| 17. Basic Physics 1 and Laboratory | 18. Special Topics |

Master Thesis

1. Synthesis of Cr-doped ZnS nanoparticles and study of magnetic and optical properties

زینب کوچک زایی, [Mousa Aliahmad, Zihab Sohbatzadeh, Abbas Rahdar]

نیمسال اول سال تحصیلی 96-97

2. Green Synthesis and characterization of nickel oxide silver loaded Reduced Graphene Oxide composite

سمیه سعیدی مهر, [Mousa Aliahmad, Majid Azarang, Abbas Rahdar]

نیمسال اول سال تحصیلی 96-97

3. Synthesis and characterization of magnetic and optical properties of vanadium-doped alumina nanoparticles

مریم حسینی, [Mousa Aliahmad, Hasan Hasani]

نیمسال اول سال تحصیلی 93-94

Journals Papers

2021

1. [Green gelatin-assisted: Synthesis of Co₃O₄NPs@rGO nanopowder for highly efficient magnetically separable methylene orange dye degradation](#)

Majid Azarang, Arazoo Bakhteyarenea, Reza Rakhshani, Abdol Mahmood Davarpanah, Mousa Aliahmad,

ADVANCED POWDER TECHNOLOGY Volume: (32) 504 - 514

2020

2. [Synthesis and Photophysical Study of Reverse Nano-Micelles Containing Dye](#)

Adele Moradikor, Mousa Aliahmad, abbas rahdar

Volume: (14) 191 - 202

2019

3. [Probing the reverse micelle environment with a cationic dye by varying oil and water content of micelles](#)

Abbas Rahdar, Mousa Aliahmad, Adele Moradikor, Dibakar Sahoo

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY Volume: (210) 165 - 170

4. [Synthesis and characterization of highly efficacious Fe-doped ceria nanoparticles for cytotoxic and antifungal activity](#)

Abbas Rahdar, Mousa Aliahmad, , Mostafa HeidariMajd, Md. Abu Bin Hasan Susan

CERAMICS INTERNATIONAL Volume: (45) 7950 - 7955

2018

5. [Zn-doped PbO nanoparticles \(NPs\)/fluorine-doped tin oxide \(FTO\) as photoanode for enhancement of visible-near-infrared \(NIR\) broad spectral photocurrent application of narrow bandgap nanostructures SnSe NPs as a case study](#)

Majid Azarang, Mousa Aliahmad, Ghorban Shiravizadeh, H. R. Azimi, yousefi ramini

JOURNAL OF APPLIED PHYSICS Volume: (124) 123101 -

6. [Nitrogen doped graphene supported zinc sulfide nanorods as efficient Pt free for visible-light photocatalytic hydrogen production](#)

Majid Azarang, mehran sookhakian, Mousa Aliahmad, Masoumeh Dorraj, Basirun Wan Jeffrey, Goh Boon Ton

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY Volume: (43) 14905 - 14914

7. [Iron oxide nanoparticles Synthesis physical characterization and intraperitoneal biochemical studies in Rattus norvegicus](#)

Abbas Rahdar, Pablo Taboada, Mousa Aliahmad, Mohammad Reza Hajinezhad,

JOURNAL OF MOLECULAR STRUCTURE Volume: (1173) 240 - 245

8. Effect of ion exchange in NaAOT surfactant on droplet size and location of dye within Rhodamine B (RhB)-containing microemulsion at low dye concentration

Abbas Rahdar, Mohammad Almasi-Kashi, Asad Muhammad Khan, Mousa Aliahmad, Anayatollah Salimi, Moez Gu

JOURNAL OF MOLECULAR LIQUIDS Volume: (252) 506 - 513

9. Xanthan gum-stabilized nano-ceria: Green chemistry based synthesis, characterization, study of biochemical alterations induced by intraperitoneal doses of nanoparticles in rat

Abbas Rahdar, Mousa Aliahmad, Mohammad Reza Hajinezhad,

JOURNAL OF MOLECULAR STRUCTURE Volume: (1173) 166 - 172

10. Corrigendum to "The synthesis and characterization of a magnetite nanoparticle with potent antibacterial activity and low mammalian toxicity" [J. Mol. Liq. 265 (2018) 96 - 104]

Seyedeh Maryamdokht Taimoory, Abbas Rahdar, Mousa Aliahmad, , Mohammad Reza Hajinezhad, Mohammad Jah

JOURNAL OF MOLECULAR LIQUIDS Volume: (265) 96 - 104

2017

11. Effect of chain length of oil on location of dye within AOT nanometer-sized droplet microemulsions at constant water content

Abbas Rahdar, , Mousa Aliahmad

JOURNAL OF MOLECULAR LIQUIDS Volume: (233) 398 - 402

12. Importance of the Inter-Electrode Distance for the Electrochemical Synthesis of Magnetite Nanoparticles: Synthesis, Characterization, Computational Modelling, and Cytotoxicity

, , , Mousa Aliahmad, ,

e-Journal of Surface Science and Nanotechnology Volume: (15) 31 - 39

13. Importance of the Inter-Electrode Distance for the Electrochemical Synthesis of Magnetite Nanoparticles Synthesis Characterization Computational Modelling and Cytotoxicity

Seyedeh Maryamdokht Taimoory, John F. Trant, Abbas Rahdar, Mousa Aliahmad,

e-Journal of Surface Science and Nanotechnology Volume: (15) 31 - 39

2016

14. Synthesis and Biochemical effects of magnetite nanoparticle by surfactant-free electrochemical method in an aqueous system: The current density effect

Mousa Aliahmad, Abbas Rahdar, Fardin sadeghfard, Samira Bagheri, Mohammad Reza Hajinezhad

Nanomedicine Research Journal Volume: (1) 39 - 46

2015

15. NiO Nanoparticles Synthesis and Characterization

Abbas Rahdar, Mousa Aliahmad, Yahya Azizi

Journal of Nanostructures Volume: (5) 145 - 151

16. NiO Nanoparticles: Synthesis and Characterization

, Mousa Aliahmad, Yahya Azizi

journal of nanostructures Volume: (5) 145 - 151

17. NiO Nanoparticles: Synthesis and Characterization

, Mousa Aliahmad, Yahya Azizi

journal of nanostructures Volume: (5) 145 - 151

2014

18. Synthesis of Cu Doped NiO Nanoparticles by Chemical Method

Mousa Aliahmad, Abbas Rahdar, Yahya Azizi

Journal of Nanostructures Volume: (4) 145 - 152

2013

19. SNO₂ NANOPARTICLES PREPARATION ANDEVALUATION OF THEIR CATALYTIC ACTIVITY IN THE OXIDATION OF ALDEHYDE DERIVATIVES TO THEIRCARBOXYLIC ACID AND SULFIDES TO SULFOXIDE ANALOGS

, Mousa Aliahmad, ,

PHOSPHORUS SULFUR AND SILICON AND THE RELATED ELEMENTS Volume: (188) 864 - 872

20. Nickel-doped SnO₂ Nanoparticles Preparation and Evaluation of Their Catalytic Activity in the Synthesis of 1-amido Alkyl-2-naphtholes

, Mousa Aliahmad, ,

SYNTHESIS AND REACTIVITY IN INORGANIC METAL-ORGANIC AND NANO-METAL CHEMISTRY Volume: (43) 1301 - 1306

21. Synthesis of nickel ferrite nanoparticles by co-precipitation chemical method

Mousa Aliahmad, , Naser Hatefi Kargan, m sargazi

International Journal of the Physical Sciences Volume: (8) 854 - 858

22. Nickel-doped SnO₂ Nanoparticles: Preparation and Evaluation of Their Catalytic Activity in the Synthesis of 1-amido Alkyl-2-naphtholes

, Mousa Aliahmad, , majid ghashang

Synthesis and Reactivity in Inorganic Metal-Organic and Nano-Metal Chemistry Volume: (43) 1301 - 1306

23. synthesis of magnetite (-Fe₂O₃) nanoparticles by thermal-decomposition of magnetite (Fe₃O₄) nanoparticles

Mousa Aliahmad,

MATERIALS SCIENCE Volume: (2) 264 - 268

24. Synthesis and characterization of nickel ferrite nanoparticles by chemical method

Mousa Aliahmad,

INDIAN JOURNAL OF PHYSICS Volume: (87) :431 - 434

25. SnO₂ NANOPARTICLES: PREPARATION AND EVALUATION OF THEIR CATALYTIC ACTIVITY IN THE OXIDATION OF ALDEHYDE DERIVATIVES TO THEIR CARBOXYLIC ACID AND SULFIDES TO SULFOXIDE ANALOGS

, Mousa Aliahmad, ,

PHOSPHORUS SULFUR AND SILICON AND THE RELATED ELEMENTS Volume: (188) :864 - 872

26. The effect of TBAC on the collective diffusion coefficient and morphology of AOT microemulsion at $X^{6.7}$

, , Mousa Aliahmad, ,

PHYSICS AND CHEMISTRY OF LIQUIDS Volume: (51) 469 - 479

27. AFM Study of a Lipid Multilayer with Cholesterol

Aboozar Nasrollahi, soheil sharifi, Mousa Aliahmad

Chemical Rapid Communications Volume: (1) 56 - 59

28. Ni-Doped SnO₂ Nanoparticles Synthesized by Chemical Co-Precipitation Method

Mousa Aliahmad, mohsen dehbashi

Iranica Journal of Energy and Environment (MSRT BLACKLIST) Volume: (4) 49 - 52

29. Synthesis and characterization of nickel ferrite nanoparticles by chemical method

Mousa Aliahmad,

INDIAN JOURNAL OF PHYSICS Volume: (87) 431 - 434

30. Fabrication of Superhydrophobic surface by Co₃O₄ nanoparticles

, Mousa Aliahmad, Hamideh Saravani

INDIAN JOURNAL OF PHYSICS Volume: (87) 211 - 215

31. The effect of TBAC on the collective diffusion coefficient and morphology of AOT microemulsion at $X^{6.7}$

, Mohammad Reza Mohammadi, Mousa Aliahmad, othmar marti, masoud amirkhani

PHYSICS AND CHEMISTRY OF LIQUIDS Volume: (51) 469 - 479

32. Effect of different capping agents on the undoped ZnS semiconductor nanocrystals Synthesis and optical and structural Characterization

abbas rahdar, Mousa Aliahmad, H asnaashari

Advanced Science Letters Volume: (19) 547 - 549

2012

33. Synthesis of $\text{Sn}_{0.986}\text{Ni}_{0.014}\text{O}$ Nanoparticles and Study of Their Optical Band Gap

, Mousa Aliahmad

International Journal of Optics and Photonics Volume: (6) 113 - 116

34. Detecting Ultra-Violet radiation by using Titanium Dioxide Nanoparticles

Naser Hatefi Kargan, Mousa Aliahmad,

Soft Nanoscience Letters Volume: (2) 29 - 33

35. NiO-SnO_2 Composite Nano-Powder: Preparation and Evaluation of their Catalytic Activity in the Synthesis of 1-amido alkyl-2-naphtholes

, Mousa Aliahmad, , majid ghashang

LETTERS IN ORGANIC CHEMISTRY Volume: (9) 711 - 719

36. ChemInform Abstract: NiO-SnO_2 Composite Nano-Powder: Preparation and Evaluation of Their Catalytic Activity in the Synthesis of 1-Amidoalkyl-2-naphtholes.

, Mousa Aliahmad, ,

LETTERS IN ORGANIC CHEMISTRY Volume: (9) 711 - 719

37. NiO-SnO_2 composite nano-powder Preparation and evaluation of their catalytic activity in the synthesis of 1-amido alkyl-2-naphtholes

, Mousa Aliahmad, Mohammad R. M. Shafiee, majid ghashang

LETTERS IN ORGANIC CHEMISTRY Volume: (9) 711 - 719

38. Experimental study of structural and optical band gap of nickel doped tin oxide nanoparticles

, Mousa Aliahmad

International Journal of the Physical Sciences Volume: (7) 5415 - 5420

39. Photon Correlation Spectroscopy and SAXS Study of Cylindrical to Spherical Transition in the AOT Microemulsion by Changing Solvent

Khadijeh Nikjoo, Mousa Aliahmad, , mohsen sargazi

Soft Nanoscience Letters Volume: (2) 17 - 21

40. photon correlation spectroscopy and SAXS study of mixture of NaCl with AOT microemulsion at X 6.7

Nahid Karimi, , Mousa Aliahmad

Optics and Photonics Journal Volume: (2) 54 - 58

2006

41. Integrating Nano and microparticles

sh ashtaputre, A Dehpande, Mousa Aliahmad, Sonali Marathe, suchita kalele, J Chimanpure, a jurban, S
INDIAN JOURNAL OF PURE and APPLIED PHYSICS Volume: (44) 107 - 112

Conferences Papers

2018

1. Synthesis and study

5th international conference on recent innovation chemistry and chemical engineering
Adele Moradikor, Mousa Aliahmad, Abbas Rahdar

2. synthesis

5th international conference on recent innovations chemistry and chemical engineering
Adele Moradikor, Mousa Aliahmad, Abbas Rahdar

2011

3. Cobalt oxide nanoparticles prepared in two different ways, chemical, physical, and compare results

First National Conference on Nanoscience and Nanotechnology
Mousa Aliahmad, , Hamideh Saravani

4. Ultraviolet radiation (UV) detection by using titanium oxide nanocrystals

1st National Conference on Nano Science
, Naser Hatefi Kargan, Mousa Aliahmad, Mohammad Saeid Hadavi

2010

5. Calculation of tunneling coefficient in resonant tunneling diode

16 th Annual IASBS Condensed Matter Meeting
, , Naser Hatefi Kargan, Mousa Aliahmad

6. Synthesis of Co₃O₄ nanoparticles by modified sol-gel method and investigation of their optical properties

Iranian Physics Conference
Mousa Aliahmad, , Hamideh Saravani