Personal Information

Amir Bayat

Assistant Professor, Condensed Matter Physics, Tarbiat Modares University, Department of Basic science

Tehran, Iran

(+98)82884065

amir.bayat@modares.ac.ir amirbayat80@yahoo.com

Birth Year: 1987

Google Scholar
https://scholar.google.com/citations?hl=en&user=7oZ3b54AAAAJ

Education and Professional History

2021 Jun-2022 Jun

Postdoc researcher, Department of Physics, Sharif University of Technology, Tehran, Iran

Oxidation of water based on Ni-Fe Layered Double Hydroxide nanostructures

Sep 2012-Jan 2018

Ph.D. in Condensed Matter Physics, Faculty of Basic Science, Tarbiat Modares University, Tehran, Iran

Synthesis and investigation of electro/photoelectrochemical electrodes based on carbon quantum dots, MoS_2 and WS_2

Sep 2010-Sep 2012

MSc. in Condensed Matter Physics, Department of Physics, Sharif University of Technology, Tehran, Iran

Synthesis, characterization and hydrophobicity of Teflon coated tungsten nanostructure thin films

Sep 2006-May 2010

BSc. In Applied Physics at Razi University, Kermanshah, Iran

Publications

2022

1. **A. Bayat**, Alireza. Moahfegh, Hierarchical NiFe layered double hydroxide as an advanced bifunctional electrocatalyst toward overall water splitting, under submission

2022

2. E. Irani, E. Yazdani and **A. Bayat**, *Optik*, 2022, 249, 168198

2022

3. M. Shakourian, S. R. Ardekani, **A. Bayat**, E. Saievar-Iranizad and W. Deferme, JCIS Open, 2022, 7, 100059.

2022

4. M. Parishani, R. Malekfar, **A. Bayat** and H. Gharibi, Journal of the Iranian Chemical Society, 2022, 19, 4299-4307

2021

5. **A. Bayat**, M. Ebrahimi, S. R. Ardekani, E. S. Iranizad and A. Z. Moshfegh, Langmuir, 2021, 37, 8382-8392

2021

6. M. T. Dejpasand, E. Saievar-Iranizad, **A. Bayat** and S. R. Ardekani, Journal of Alloys and Compounds, 2021, 885, 160904.

2021

7. M. S. Hosseini, E. Yazdani, E. Irani, B. Sajad, F. Mehradnia, S. Bazire and **A. Bayat**, Optics Communications, 2021, 500, 127338.

2021

2021 8. M. Ebrahimi, **A. Bayat**, S. R. Ardekani, E. S. Iranizad and A. Z. Moshfegh, Applied Surface Science, 2021, 561, 150068.

2020 9. M. T. Dejpasand, E. Saievar-Iranizad and **A. Bayat**, Journal of Luminescence, 2021, 236, 118070.

2020 10. **A. Bayat,** E. Saievar-Iranizad, E. Bayatloo, A. Zare, A. Arabkhorasani and S. S. Polkoo, The European Physical Journal Plus, 2020, 135, 1-11.

2020 11. A. Zare, **A. Bayat,** E. Saievar-Iranizad and H. Naffakh-Moosavy, Journal of Electroanalytical Chemistry, 2020, 878, 114595.

2020 12. F. M. Meresht, E. S. Iranizad, **A. Bayat** and M. N. Liavali, International Journal of Hydrogen Energy, 2020, 45, 28696-28705.

2020 13. M. T. Dejpasand, E. Saievar-Iranizad, **A. Bayat**, A. Montaghemi and S. R. Ardekani, *Materials Research Bulletin*, 2020, 128, 110886.

2020 14. F. Jahantigh, S. B. Ghorashi and **A. Bayat**, *Dyes and Pigments*, 2020, 175, 108118.

2019 15. M. Ghaemmaghami, Y. Yamini, E. Saievar-Iranizad and **A. Bayat**, *Sustainable Energy & Fuels*, 2020, 4, 1150-1156.

2019 16. S. R. Ardekani, A. S. R. Aghdam, M. Nazari, **A. Bayat**, E. Saievar-Iranizad and M. N. Liavali, *Solar Energy Materials and Solar Cells*, 2019, 203, 110195.

2019 17. S. R. Ardekani, A. S. R. Aghdam, M. Nazari, **A. Bayat** and E. Saievar-Iranizad, *Progress in Organic Coatings*, 2019, 135, 248-254.

2019 18. F. Behzadi, E. Saievar-Iranizad and **A. Bayat**, *Materials Research Express*, 2019, 6, 105615.

2018 19. S. R. Ardekani, A. S. R. Aghdam, M. Nazari, **A. Bayat**, E. Yazdani and E. Saievar-Iranizad, *Journal of Analytical and Applied Pyrolysis*, 2019, 141, 104631.

2018 20. **A. Bayat** and E. Saievar-Iranizad, *Journal of energy chemistry*, 2018, 27, 306-310.

2018 21. H. Asiabi, Y. Yamini, M. Shamsayei, E. Saievar-Iranizad and **A. Bayat**, *Scientific reports*, 2018, 8,1-8.

2018 22. V. Barough, E. S. Iranizad, **A. Bayat** and K. Hemmati, *Journal of Electroanalytical Chemistry*, 2018, 823, 278-286.

2018 23. **A. Bayat** and E. Saievar-Iranizad, *Journal of Alloys and Compounds*, 2018, 755, 192-198.

2017 24. **A. Bayat**, M. Zirak and E. Saievar-Iranizad, *ACS Sustainable Chemistry & Engineering*, 2018, 6, 8374-8382.

2017 25. **A. Bayat** and E. Saievar-Iranizad, *Journal of Luminescence*, 2017, 192, 180-183.

2017 26. K. H. Kahradeh, E. Saievar-Iranizad and **A. Bayat**, *Surface and Coatings Technology*, 2017, 319, 318-325.

2016 27. **A. Bayat** and E. Saievar-Iranizad, *Journal of Luminescence*, 2017, 185, 236-240.

2016 28. M. Zirak, M. Ebrahimi, M. Zhao, O. Moradlou, M. Samadi, **A. Bayat**, H.-L. Zhang and A. Moshfegh, *RSC advances*, 2016, 6, 16711-16719.

2015 29. S. P. Amyab, E. Saievar-Iranizad and **A. Bayat**, *RSC advances*, 2016, 6, 41937-41946.

2014 30. **A. Bayat**, M. Ebrahimi, A. Nourmohammadi and A. Moshfegh, *Applied Surface Science*, 2015, 341, 92-99.

2014 31. M. Ebrahimi, M. Qorbani, **A. Bayat**, A. Zavarian and A. Moshfegh, *Journal of Physics D: Applied Physics*, 2014, 47, 115302.

32. **A. Bayat**, M. Ebrahimi and A. Moshfegh, *Vacuum*, 2014, 101, 279-282.

Conference paper

2016 Synthesis of WS_2 nanoflakes using probe ultrasonication, Physics Conference of Iran, Shiraz, Iran

2015 Synthesis of MoS_2 nanoflakes with high lateral surface, Physics Conference of Iran, Mashhad, Iran

2013	Fabrication, characterization and field emission studies of NiO nanorods, Condensed matter physics Conference, Shahrood, Iran
2012	Hydrophobicity of Teflon coated Tungsten GLAD RF sputtered nanorod thin films, Vasscaa-6 Conference, Islamabad, Pakistan

Research Interests

Surface physics
Nanomaterials
Clean energy

Skills

Technical Skills

- Experience on different methods for synthesis nanostructures (Sputtering, Hydrothermal, Electrodeposition, …).
- Synthesizing 2D-Materials (TMDs, Graphene, LDHs) and Quantum Dots (GQDs, …).
- Experience on analysis of various techniques (FESEM, EDX, XRD, Raman, AFM, TEM, XPS, PL, UV-vis, …).
- Experience on Photo/Electrochemical cells for water splitting and DSSC.
- Direct operation of material characterization methods includes PL, UV-vis, WCA, and Electrochemical measurements (CV, LSV, EIS …).