CURRICULUM VITAE

Personal Data

First name, surname: Shadi Bashiri
Address:
Phone:
Date of birth:
Email:

Education

PhD **Material Science, Nanotechnology, and Complex Systems** *Nov 2016 – Jul 2020*

University of Roma Tre, Rome, Italy, Department of Science,Cycle XXXII.
Dissertation title: "Morphological alterations of a xerotolerant *Acinetobacter baumannii* under desiccation stress investigated by atomic force microscopy"

MSc **Solid-State Physics** *Feb 2011- Dec 2013*

Payame Noor University, Mashhad, Iran, Department of Science.
Thesis: "Investigation of transparent conductive tin oxides thin-films characteristics produced by atmospheric pressure chemical vapor deposition (APCVD) techniques."

BS **Physics** *Sep 2005 - Jun 2009*

Khayyam University, Mashhad, Iran
Department of Science

Research Experience

- **Internship at IFOM imaging unit.**
  Milan, Italy. *September – December 2021*
- **Investigation response of *Acinetobacter baumannii* to desiccation stress and its morphological alterations by atomic force microscopy.** *Nov 2016 – Jul 2020*
  - Joint collaboration between department of physics and biology at university of Roma Tre
- **Training course on BioAFM held by AFM BioMed summer school.**
  Grenoble, France. *August 2017*
- **Computational physics and simulation of Graphene-like structure materials** *April 2014 – Sep 2016*

- Joint collaboration between Payame Noor University of Mashhad (PNUM) and Islamic Azad University.

  Focusing on computational nanotechnology based on density functional theory (DFT) approach by employing Wien2K and Quantum Espresso packages to study the effect of defects on graphene-like structures.

- **APCVD synthesis of transparent conductive tin-oxide thin-films.**

  Feb 2011 – Feb 2013

  - Payame Noor university of Mashhad

  - Characterization of SnO2 thin-films produced by a controlled atmospheric chemical vapor deposition technique.

Teaching Experience

- Khayyam University, Mashhad- Iran *Sep 2013-Jul 2014*
  Electronic-lab instructor

- Payame Noor University, Mashhad- Iran *Sep 2012-Jul 2013*
  Nano-Lab teacher assistant (TA)

Communication Skills

- Excellent interpersonal relations
- Team working
- Adaptability in a multicultural environment
- Goal-oriented
- Problem solving

Professional Skills

Techniques:

- Atomic Force Microscopy (AFM)
- Widefield Microscopy
- Chemical Vapor deposition (CVD)

Applications:

- Quantum Espresso (an integrated modeling suite for electronic-structure calculations and materials modeling in nanoscale)
- Wien2K (program package to perform electronic-structure calculation using density functional theory (DFT)
- Linux (basic)
- LaTex (professional)
- Origin (industry-leading scientific graphing and data analysis software)
- Gwyddion (modular program for scanning probe microscopy (SPM), data visualization and analysis)
- Fiji and ImageJ software (Image processing package)

- Inkscape (professional quality vector graphics software)

Publications

E.Fardelli, M. Lucidi, S. Bashiri, M. Gioacchino, L. Persichetti, A. Sodo, P. Visca, G. Capellini
Characterization of dehydrating membrane of *Acinetobacter baumannii* with Raman, FRAP, GC, and AFM. (Under review)

E.Fardelli, S. Bashiri, M. Gioacchino, L. Persichetti, M. Lucidi, A. Sodo, P. Visca, G. Capellini
Acinetobacter Baumannii: a bacterial membrane study
13th European Biophysics Conference,24-28 July 2021, Vienna, Austria

S. Bashiri, M. Lucidi, D. Visaggio, G. Capecchi, L. Persiche, G. Cincotti, P. Visca, G. Capellini
Growth phase- and desiccation- dependent *Acinetobacter baumannii* morphology: an atomic force microscopy investigation.
Langmuir Journal,January 2021
DOI: https://doi.org/10.1021/acs.langmuir.0c02980

S. Bashiri, D. Visaggio, M. Lucidi, P. Visca, and G. Capellini
Morphological responses of *Acinetobacter baumannii* to different degree of desiccation: An AFM investigation.
9th AFM BioMed Conference,02-06 September 2019, Münster, Germany

D. Visaggio, M. Lucidi, S. Bashiri, G. Cincotti, G. Capellini, and P. Visca
Desiccation and hypotonicity tolerance in pathogenic *Acinetobacter baumannii*
33rd National Meeting of the Italian Society of General Microbiology (SIMGBM),19-22 June 2019, Florence, Italy

S. Bashiri, M. Lucidi, D. Visaggio, P. Visca and G. Capellini
The consequence of long-term desiccation on *Acinetobacter baumannii* ACICU by Atomic Force Microscopy.
GioNa conference, 15-16 February 2018, Engineering department of Roma Tre University

A. Boochani, A. Akhtar, M. Amiri, C. Luna, D. Prakash, S. Bashiri, M. Molamohammadi, M. Elahi
Effects of hydrogen and nitrogen impurities on electronic, structural and optical properties of 2D ZnS graphene based
Journal of Materials Science,September 2017
DOI: https://doi.org/10.1007/s10853-017-1198-z

R. Hajihashemi, S. Bashiri, M.R. Benam, M.M.Bagheri Mohagheghi.
"Temperature effects on structural properties of transparent conductive tin oxide thin films produced by APCVD"
6th national conference on Physics Payame Noor University, 18-19 February 2014, Isfahan, Iran.

S. Bashiri, R. Hajihashemi, M.R. Benam, M.M.BagheriMohagheghi.
"Investigation the impact of amorphous and crystalline phases of transparent conductive tin-oxide thin films on the structural, optical, and photoconductivity properties produced by chemical vapor deposition method"
11th national conference on condensed matter physics, 26-27 January 2013, Shahrood, Iran

S. Bashiri, R. Hajihashemi, M.R. Benam, M.M.BagheriMohagheghi.
" Annealing effects on structural, optical and photoconductivity properties of tin oxide thin films grown by atmospheric pressure chemical vapor deposition (APCVD)"
20th Iranian symposium of crystallography and Mineralogy, February 2013, Ahvaz,Iran.

R. Hajihashemi, S. Bashiri, M.R. Benam, M.M.BagheriMohagheghi.
"Source-distance and substrate-direction dependent optical and photoconductivity properties of SnO2 thin films prepared by APCVD method"
20th Iranian symposium of crystallography and Mineralogy, February 2013, Ahvaz,Iran.

S. Bashiri, R. Hajihashemi, M.R. Benam, M.M.BagheriMohagheghi.
" Chemical vapor deposition synthesis and characterization of conductive tin-oxide thin-films electrical properties.
1st Iranian electronic nanotechnology Conference, October 2012, Kermanshah, Iran

R. Hajihashemi, S. Bashiri, M.R. Benam, M.M.BagheriMohagheghi.
"Low-temperature growth of SnO2 thin films employing atmospheric pressure chemical vapor deposition method (APCVD)"
1st Iranian electronic nanotechnology Conference, October 2012, Kermanshah, Iran

References