

Dr. Mohammad Abdur Rashid

CONTACT INFORMATION

Office Address: Assistant Professor of Physics
Department Physics
Jashore University of Science and Technology
Jashore 7408, Bangladesh
<https://just.edu.bd/>

Phone (cell): +880 1830 716 122

E-mail : rashid@just.edu.bd

Website: <https://just.edu.bd/t/rashid>

PROFESSIONAL EXPERIENCES

Assistant Professor (November 2018 – Present)
Department of Physics
Jashore University of Science and Technology
Jashore 7408, Bangladesh

Part-time Faculty (January 2018 – December 2018)
Department of Theoretical Physics
University of Dhaka
Dhaka 1000, Bangladesh

Assistant Professor of Physics (November 2013 – November 2018)
Department of Arts and Sciences
Ahsanullah University of Science and Technology
Tejgaon, Dhaka 1208, Bangladesh

Teaching Assistant (February 2014 – October 2016)
School of Physics and Astronomy
University of Nottingham
Nottingham, United Kingdom

Lecturer in Physics (September 2010 – October 2013)
Department of Arts and Sciences
Ahsanullah University of Science and Technology
Tejgaon, Dhaka 1208, Bangladesh

EDUCATION

PhD in Physics (November 2013 – April 2017)
School of Physics and Astronomy
University of Nottingham
Nottingham, NG7 2RD, United Kingdom

Diploma in Condensed Matter Physics 2009 – 2010
The Abdus Salam International Center for Theoretical Physics (ICTP)
Strada Costiera 11, I-34151 Trieste, Italy

M. S. in Physics, 2005 (Exam held in 2008), 1st Class
Department of Physics, University of Dhaka
Dhaka 1000, Bangladesh

B. S. in Physics, 2004 (Exam held in 2006), 1st Class
Department of Physics, University of Dhaka
Dhaka 1000, Bangladesh

TITLE OF PhD THESIS

Theoretical Interpretation of Scanning Probe Images of Molecules on Surfaces

TITLE OF DIPLOMA THESIS

A Classical Potential for the Gold-Alkanethiols Interface

TITLE OF MASTER'S THESIS

Studies of Phonon Dispersion and Electronic Transport Properties of Amorphous Metals

LIST OF PUBLICATIONS

Md. Alamgir Badsha, **Mohammad Abdur Rashid**, Md. Humaun Kabir, Md. Mehade Hasan: "Coherent perfect absorption in epsilon-near-zero ITO thin film in near infrared", Opt. Pura Apl. **53**(1), 1-12 (2020)

M. S. S. Chowdhury, **Mohammad A. Rashid**, M. A. Rahman and A. Z. Ziauddin Ahmed: "Study of Energy of Formation for $\text{Fe}_x\text{Ni}_{1-x}$ Liquid Binary Alloys", Asian J. of Research and Reviews in Physics **2**(4), 1-12 (2019).

Adam Sweetman, **Mohammad A. Rashid**, Samuel P. Jarvis, Janette L. Dunn, Philipp Rahe and Philip Moriarty: "Visualizing the orientational dependence of an intermolecular potential", Nat. Commun. **7**, 10621 (2016).

Adam Sweetman, Samuel P. Jarvis and **Mohammad A. Rashid**: "Modelling of 'sub-atomic' contrast resulting from back-bonding on Si(111)- 7×7 ", Beilstein J. Nanotechnol. **7**, 937 (2016).

Samuel Paul Jarvis, **Mohammad Abdur Rashid**, Adam Sweetman, Jeremy Leaf, Simon Taylor, Philip Moriarty and Janette Dunn: "Intermolecular artifacts in probe microscope images of C_{60} assemblies", Phys. Rev. B **92**, 241405(R) (2015).

M. Abdur Rashid and S. Scandolo: "A classical potential for the Gold(111)-Alkanethiols interface", The AUST Journal of Science and Technology, **4**(1), 1 (2012).

PAPER IN INTERNATIONAL CONFERENCE

M. A. Rashid, P. Moriarty and J. L. Dunn: "Interpreting AFM images of the assembly of bi-isonicotinic acid molecules", International Conference on Physics-2020, Dhaka, Bangladesh, March 2020.

M. A. Rashid, S. P. Jarvis, A. Sweetman, A. Saywell, P. Moriarty, J. L. Dunn: "Theoretical Study of The Intra- and Intermolecular Potentials of Assemblies of C_{60} Molecules and of Phthalocyanine Molecules", 19th International Conference on Non-Contact Atomic Force Microscopy, Nottingham, UK, July 2016.

M. A. Rashid, S. P. Jarvis, A. Sweetman, P. Moriarty, J. L. Dunn: “Theoretical Study of the Intermolecular Potential (Artefact) Between C₆₀ Molecules”, UK-Japan Symposium on Atomic and Molecular Manipulation: Force and Tunnel Current in Scanning Probe Microscopy, Nottingham, UK, December 2015.

M. A. Rashid, P. Sharp, P. Moriarty, J. L. Dunn: “Theoretical Study of C₆₀F₄₈ Using Hückel Molecular Orbital Theory”, Interdisciplinary Surface Science Conference (ISSC-20), Birmingham, UK, March 2015.

M. A. Rashid, S. Scandolo, S. K. Bhattacharya: “A Classical Potential for the Gold-Alkanethiols Interface”, BPS Conference 2011, Dhaka, Bangladesh, February 2011.

G. M. Bhuiyan, **M. A. Rashid**, A. Z. Ziauddin Ahmed and R. I. M. A. Rashid: “A Theory of Electrical Resistivity of Amorphous Metals”, DPG Spring Meeting 2009, Dresden, Germany, March 2009.

WORKSHOP ATTENDED

CECAM Tutorial Computational Spectroscopy Using Quantum Espresso and Related Codes, SISSA, Trieste, Italy, 26-30 July 2010.

Summer School on Atomistic Simulation Techniques for Material Science, Nanotechnology and Biophysics, SISSA, Trieste, Italy, 5-23 July 2010.

Workshop on Dynamics of Strongly Correlated Quantum Systems, ICTP, Trieste, Italy, 21-25 June 2010.

Spring College on Computational Nanoscience, ICTP, Trieste, Italy, 17-28 May 2010

Bose Winter School on Current Topics: Quantization, Wavelets and Their Applications to Physics-07, Department of Physics, University of Dhaka, Bangladesh & The Abdus Salam ICTP, Italy, December 2007.

REFERENCES

Prof. Golam Mohammed Bhuiyan

Department of Theoretical Physics

University of Dhaka

Dhaka 1000, Bangladesh

Phone: +880 1911 305 306

E-mail: gbhuiyan@du.ac.bd

Dr. Janette Dunn

School of Physics & Astronomy

The University of Nottingham

Nottingham, NG7 2RD

United Kingdom

Phone: +44(0)115 951 5135

E-mail: janette.dunn@nottingham.ac.uk