Animesh Kumer Chakraborty

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Department of Physics, Chittagong University of Engineering & Technology,
Chittagong-4349, Bangladesh

Personal Information

Date of birth : 25th May, 1974
Sex : Male
Nationality : Bangladeshi (by birth)

Current Position

Assistant Professor, Department of Physics, Chittagong University of Engineering & Technology, Chittagong-4349, Bangladesh

Education

Chittagong University of Engineering & Technology, Bangladesh
(Through a research collaboration between Atomic Energy Research Establishment, Dhaka, Bangladesh and Research Center Jülich, Germany)
PhD, Nuclear Physics (Nuclear Reaction Data), 2017
Dissertation: Studies on *proton induced nuclear reactions* on Ni and Fe using low energy accelerators

Chittagong University of Engineering & Technology, Bangladesh
MPhil, Theoretical Condensed Matter Physics, 2012
Dissertation: Theoretical investigation on the *diffusion of hydrogen* in some metal-alloys as an alternative source of energy

University of Chittagong, Bangladesh
MSc, Experimental Research in Semiconductor Physics, 1999
Dissertation: Barrier heights and interface effects in Au-n-Si *Schottky diodes*
Result: First Class

University of Chittagong, Bangladesh
BSc (Honours), Physics, 1997
Result: First Class

Research and Teaching Interest

Nuclear and Radiation Physics: Particle induced nuclear reaction data measurement & evaluation, Nuclear model calculations, Nuclear reaction mechanisms, Radiation safety analysis, Environmental radioactivity measurement
Medical Physics: Medical radioisotope production, Radiation dosimetry

Courses Teaching Presently at Graduate and Postgraduate Levels

Advanced Nuclear Physics, Nuclear Models, Reactor Physics, Neutron Scattering, Radiation Protection

Publications in Journals

1. **Animesh Kumer Chakraborty**, Md. Shuza Uddin, Md. Asad Shariff, Shaikh Abdul Latif, Md. Abdur Rashid and Mayeen Uddin Khandaker: Efficiency calibration of γ-ray detector for extended sources. Pramana Journal of Physics (Accepted on 4th October 2018)
2. Md. Shuza Uddin, **Animesh Kumer Chakraborty**, Stefen Spellerberg, Ingo Spahn, Md. Asad Shariff, Md. Abdur Rashid, Syed M. Qaim: Excitation functions of proton induced nuclear reactions on ^{nat}Fe up to 16 MeV, with emphasis on radiochemical determination of low cross sections. Radiochimica Acta. **105** (12), pp. 985-992 (2017)
3. Md. Shuza Uddin, **Animesh Kumer Chakraborty**, Stefan Spellerberg, Md. Asad Shariff, Sopan Das, Md. Abdur Rashid, Ingo Spahn, Syed M. Qaim: Experimental determination of proton induced reaction cross sections on ^{nat}Ni near threshold energy. Radiochim. Acta; **104**(5), pp. 305–314 (2016)
4. M. S. Islam, **A. K. Chakraborty**, M. R. Huque Khan: A Study on energy band offsets of Au-n-Si diode. Jahangirnagar Physics Studies, **9**, pp. 43-55 (2001)

Conference proceedings/Abstracts

1. **A. K. Chakraborty,** M. S. Uddin, M. A. Shariff and M. A. Rashid: Experimental studies on proton induced nuclear reactions on nickel near thresholds using 3 MV Tandem Accelerator at AERE, Savar, Dhaka. (Abstract). 2nd International Conference on Physics for Sustainable Development & Technology (ICPSDT-2017), held during 10-11 December, 2017, Chittagong University of Engineering & Technology, Bangladesh.
2. M. S. Uddin, M. A. Shariff, **A. K. Chakraborty,** K. S. Kim, G. N. Kim, S. Sudár, I. Spahn and S. M. Qaim: Experimental and theoretical studies on p-and α-particle induced reactions on nickel. (Abstract). 2nd International Conference on Physics for Sustainable Development & Technology (ICPSDT-2017), held during 10-11 December, 2017, Chittagong University of Engineering & Technology, Bangladesh.
3. **Animesh Kumer Chakraborty**, Md. Shuza Uddin, Stefan Spellerberg, Md. Asad Shariff, Md. Abdur Rashid and Syed M. Qaim: Excitation functions of proton induced nuclear reactions on ^{nat}Ni. (Abstract). 16th Asian Chemical Congress 2015, held during 16-19 March, 2016, Dhaka, Bangladesh.
4. **A. K. Chakraborty,** M. A. Rashid and D. P. Paul: A Study on the diffusivity of hydrogen in some metal-alloys as a vital source of renewable energy. (Full Paper), Proceedings of the International Conference on Mechanical Engineering and Renewable Energy-2013, held during 1-3 May, 2014, Chittagong University of Engineering & Technology, Bangladesh.

5. **A. K. Chakraborty,** M. A. Rashid and D. P. Paul: Theoretical investigation on the diffusion of hydrogen in some metal-alloys. (Abstract). Proceedings of the National Conference on Advances in Physics 2012, held during 28-29 February, 2012, Shahjalal University of Science & Technology, Sylhet, Bangladesh.
6. **A. K. Chakraborty,** M. A. Rashid, D. P. Paul: A Study on Some Metal-alloy Hydrogen Systems as an Alternative Source of Energy, (Abstract) Proceedings of the International Conference on Physics of Today, held during 15-16 March, 2012, Organised by Bangladesh Physical Society.
7. **Animesh Kumer Chakraborty** and Rezaul Huque Khan: Barrier heights and interface effects in Au-n-Si Schottky diodes. (Abstract) Proceedings of National Conference on Electronics, Information and Telecommunication, held during 29-30 June, 2007, Rajshahi University, Bangladesh.

Research work presented (Oral)

1. Experimental studies on proton induced nuclear reactions on nickel near thresholds using 3 MV Tandem Accelerator at AERE, Savar, Dhaka. 2nd International Conference on Physics for Sustainable Development & Technology (ICPSDT-2017), held during 10-11 December, 2017, Chittagong University of Engineering & Technology, Bangladesh.
2. Excitation functions of proton induced nuclear reactions on ^{nat}Ni. 16th Asian Chemical Congress 2015, Dhaka, Bangladesh, held during 16-19 March, 2016.
3. A Study on the diffusivity of hydrogen in some metal-alloys as a vital source of renewable energy. International Conference on Mechanical Engineering and Renewable Energy-2013, 1-3 May, 2014, Chittagong University of Engineering & Technology, Bangladesh.
4. A Study on some metal-alloy hydrogen systems as an alternative Source of energy. International Conference on Physics of Today, 15-16 March, 2012, Organised by Bangladesh Physical Society.
5. A Study on the diffusion of hydrogen isotopes in some metal alloys. National Conference on Material Science and Technology for Sustainable Development: Bangladesh Perspective, held on 08 November, 2009, Department of Physics, Chittagong University of Engineering & Technology (CUET), Bangladesh.

Research work presented (Poster)

1. "Theoretical Investigation on the Diffusion of Hydrogen in some Metal-alloys" in the National Conference on Advances in Physics 2012, 28-29 February 2012, Shahjalal University of Science & Technology, Sylhet, Bangladesh

Conference Attended

1. 2nd International Conference on Physics for Sustainable Development & Technology (ICPSDT-2017), held during 10-11 December, 2017, Chittagong University of Engineering & Technology, Bangladesh.

2. 16th Asian Chemical Congress 2015, Dhaka, Bangladesh, held during 16-19 March, 2016.
3. International Conference on "Physics for Sustainable Development & Technology-2015", 19-20 August 2015, Chittagong University of Engineering and Technology, Chittagong, Bangladesh.
4. 2nd International Conference on Medical Physics in Radiation Oncology and Imaging (ICMPROI-2014), 20-22 August, 2014, BSMMU, Shabagh, Dhaka, Bangladesh.
5. International Conference on Mechanical Engineering and Renewable Energy-2013 (ICMERE-2013), 1-3 May, 2014, Chittagong University of Engineering & Technology, Bangladesh.
6. International Conference on Physics of Today, 15-16 March, 2012, Organised by Bangladesh Physical Society.
7. National Conference on Advances in Physics 2012, 28-29 February 2012, Shahjalal University of Science & Technology, Sylhet, Bangladesh.
8. National Conference on Material Science and Technology for Sustainable Development: Bangladesh Perspective, 08 November, 2009, Organised by the Department of Physics, Chittagong University of Engineering & Technology (CUET), Bangladesh.

Award

Best oral presenter award in the 2nd International Conference on Physics for Sustainable Development & Technology (ICPSDT-2017), held during 10-11 December, 2017, Chittagong University of Engineering & Technology, Bangladesh.

Reviewer

1. International Journal of Integrated Science & Technology (IJIST), Faculty of Science & Technology, Chittagong University of Engineering & Technology, Bangladesh.
2. International Conference on Physics for Sustainable Development and Technology (ICPSDT-2017), Department of Physics, Chittagong University of Engineering & Technology, Bangladesh.
3. International Conference on Physics for Sustainable Development and Technology (ICPSDT-2015), Department of Physics, Chittagong University of Engineering & Technology, Bangladesh.
4. International Forum on Strategic Technology (IFOST)-2014

Membership

1. Life-time member of Bangladesh Physical Society
(http://www.baphyso.org.bd)

References

1. Dr. Md. Shuza Uddin
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2. Prof. Dr. Dr. (h.c. mult.) **Syed M. Qaim**
Institut für Neurowissenschaften und Medizin,
INM-5:Nuklearchemie, Forschungszentrum Jülich, D-52425Jülich, Germany.
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3. Prof. Dr. Mayeen Uddin Khandaker
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