

CURRICULUM VITAE

Dr. ABHOY MONDAL

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&

Research Centre
VIVEKANANDA CENTRE FOR RESEARCH

✉ : Dept. of Physics,
Ramakrishna Mission Residential College (Autonomous),
Narendrapur.
Kolkata- 700 103, West Bengal, India.

Academic Qualification:

Area of Research:

Theoretical investigations of ion/atom-molecule collisions, mainly at intermediate and high energies ranging from few eV to MeV . Also, calculations of double differential ionization, excitation charge transfer cross sections dada for monoatomic, diatomic and polyatomic molecules. Comparison of proposed theoretical data and available experimental data.

Publications:

1. List of publications:

1. Energy and angular distributions of electron emission from diatomic molecules by bare ion impact → A Mondal, C R Mandal and M Purkait → **Nucl. Instr. and Meth. in Phys.Res.B.** 383, 28 (2015)

2. Electron emission in collisions of fast highly charged bare ions with helium atom → *A.Mondal*, C.R.Mandal and M.Purkait → **Eur.Phys.J.D**, **70**, 16 (2016)
3. Single ionization of water molecule in collisions with bare ions impact → *A. Mondal*, C. R. Mandal and *M. Purkait* → **J.Phys.B: At.Mol. Opt. Phys.** **49**, 075201 (2016)
4. Electron emission in collisions between atoms and dressed projectiles → *A. Mondal*, T.K. Ghosh, C. R. Mandal and *M. Purkait* → **J.Phys.B: At.Mol. Opt. Phys.** **49**, 245203 (2016)
5. Single and double electron capture in p-He and α -He collisions → S Samaddar, S Halder, *A Mondal*, C R Mandal and M Purkait → **J.Phys.B: At.Mol. Opt. Phys.** **50**, 065202 (2017)
6. Differential and total cross-sections for transfer and transfer-excitation in ion-helium collisions. → S. Halder, **A. Mondal**, S. Samaddar, C. R. Mandal and M. Purkait. → **Phy. Rev. A**, **96**, 032717, (2017)
7. Double-differential cross sections for single ionization of simple polyatomic molecules by proton impact. → **A. Mondal**, S. Halder¹, S. Mukherjee, C. R. Mandal¹ and M. Purkait → **Phys. Rev. A**, **96**, 032710 (2017)

2. Workshop attained:

1. A One Day Workshop on **CBCS-Physics Syllabus** held at **Department of Physics, Bangabasi College & U.G Board Studies in Physics, University of Calcutta**, 7th May, **2018**.
2. Two Day Workshop on **Python Programming** held at **Department of Physics, Scottish Church College & U.G Board Studies in Physics, University of Calcutta**, May 28th – 29th, **2018**.
3. One Day State Level Workshop and Symposium on **Discovering the Beauty in Mathematics** held at Department of Mathematics, **Ramsaday college, Amta**, March 6th, 2019.
4. One day Seminar Cum Workshop on **Python Computing** held at **Basanti Debi College & Nabagram Hiralal Paul College & U.G Board Studies in Physics, University of Calcutta**, February 28th, 2020.

3. **Conference/Seminar attained:**

National:

1. SERC School on Atomic and Molecular Physics, **Electron Collisions with Atomic System** held at **Ramakrishna Mission Residential College (Autonomous)**, December 4th – 22nd, **2017**.
2. **Faculty Induction Programme**, PMMMNMTT (MHRD Sponsored) held at **Central University of Punjab**, 4th June – 3rd July, **2019**.
3. 22nd National Conference on **Atomic and Molecular Physics**, (22nd NCAMP, 2019) held at **Indian Institute of Technology**, Kanpur, 25th – 28th March, **2019**.
4. **8th Topical Conference (TC-2020) on Atomic and Molecular Physics Collisions for Plasma Physics Applications**, held at the Indian Institute of Technology (IIT), Roorkee, Roorkee, 3rd – 5th March, 2020.

International:

1. **4th International conference of current developments in Atomic, Molecular, Optical and Nano Physics with applications (CDAMOP 2015)** held at **Delhi University**, Delhi from March 11-14, **2015**.
2. International topical conference on **charged particle collisions and electronic processes in atoms, molecules and materials (q-PaCE 2016)** held in **ISM, Dhanbad** from 9th to 11th January, **2016**.

Place: Kolkata

Date: 20.11.2015

(ABHOY MONDAL)