

CURRICULUM VITAE

NAME: RAKESH SAMANTA

Designation: Assistant Professor of Physics

Contact Information:

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Educational Qualifications

DEGREE OBTAINED	DISCIPLINE	UNIVERSITY	YEAR OF PASSING
Ph.D	Science (Physics)	Jadavpur University	2014
M.Sc	Physics	University of Calcutta	2009
B.Sc	Physics (Hons.)	University of Calcutta	2007

Teaching experience

1. Assistant Professor at the Dept. of Physics, Raja Rammohun Roy Mahavidyalaya, Radhanagar, Hooghly since March 28, 2017 to Till Date.
2. Assistant Professor at the Department of Physics at R.K.M Residential College (Autonomous), Narendrapur since July 1, 2015 to March 27, 2017 (FDP, UGC).

Research Interest

My area of research is Atomic Collision Physics. The main objective is the theoretical study of the charge transfer (single & double) cross sections into each individual sub-shell and total ionization cross sections for collisions of highly charged ions with atomic hydrogen/helium/ ion using Quantum and Classical formalism.

Title of the Thesis: Theoretical investigations on inelastic processes in ion-ion/atom collisions at intermediate and high energies.

Profile details

Father's Name : Sahadeb Samanta
Permanent Address : 24/2/55 Mandal Para Lane, Sreema
Apartment, Flat No- 4B, Near 30A Bus
Stand, Kolkata- 700050, West Bengal,
India.
Date of Birth : 06th October, 1986
Nationality : Indian
Sex : Male
Marital Status : Married

List of Publications

1. State-selective charge transfer in ion-ion interaction at intermediate and high energies→ **R. Samanta**, M.Purkait and C.R.Mandal→ *Phys. Scr.* **82**, 065303 (2010).
2. Single-electron capture processes in collisions of He²⁺, Liq⁺ (q=1,2,3), C⁶⁺ and O⁸⁺ ions with helium→ **R. Samanta**, M.Purkait and C.R.Mandal→ *Phys. Rev. A* **83**, 032706 (2011).
3. Electron capture by fast protons from helium like ions→ **R. Samanta** and M.Purkait→ *Eur. Phys. J. D* **64**, 311 (2011).
4. Single-electron capture from helium by fast protons→ **R. Samanta** and M. Purkait→ *Phys. Scr.* **84**, 065301 (2011).
5. Single-electron capture from hydrogen like atomic systems→ **R. Samanta**, S. Jana, C. R. Mandal and M. Purkait→ *Phys. Rev. A* **85**, 032714 (2012).
6. Electron capture and ionization in collisions of multi-charged neon ions with ground state hydrogen and helium → **R. Samanta**, S. Jana, S. Ghosh, M. Purkait and C. R. Mandal→ *Indian J. Phys.* **86**, 503 (2012).
7. Electron capture by hydrogen like projectile ions from ground state atomic hydrogen→ S. Jana, **R. Samanta** and M. Purkait→ *Nucl. Instr. And Meth. In Phys. Res. B.* **285**, 37 (2012).
8. Angular distribution of electron emission from atomic hydrogen by bare ion impact → S. Jana, **R. Samanta** and M.Purkait→ *Eur. Phys. J. D.* **66**, 243 (2012).

9. Classical simulation of single-electron capture and ionization in ion-atom interaction at intermediate energies→ S Jana, **R.Samanta** and M.Purkait→*Indian J. Phys.* **87(10), 963 (2013)**.
10. Double-differential cross sections for single ionization of helium by bare ion impact→ S. Jana, **R. Samanta**, C. R. Mandal, and M. Purkait→*Phys. Scr.* **88, 055301 (2013)**.
11. A tribute to Richard Feynman in his birth centenary→ **R.Samanta**→ *Vigyan Sikshak*→ **Volume 2, 33 (2018)**.
12. Charge Transfer in Nitrogen Ion - Hydrogen Atom Interaction in Intermediate and High Energies→ **R.Samanta**→ *Journal of Emerging Technologies and Innovative Research*→ **Volume 5, Issue 2, 1279 (2018)**.