

Name of faculty: Dr. Malay Purkait

Department: Physics

No. of Research papers published:

1. Charge transfer cross sections in collisions of Be^{q+} ($q=1-4$) and B^{q+} ($q=1-5$) with ground state atomic hydrogen→
M.Das, **M.Purkait** and C.R.Mandal → **Phys.Rev. A** 57, 3573 (1998).
2. State selective electron capture in the interactions of partially stripped ions of beryllium and boron with atomic hydrogen in the ground state→
M.Das, **M.Purkait** and C.R.Mandal → **J. Phys. B: At. Mol. Opt. Phys.**31, 4387 (1998).
3. State selective electron capture by multicharged ion of carbon, nitrogen and oxygen from ground state atomic hydrogen→
M.Purkait, M.Das and C.R.Mandal→**Phys.Rev.A**, 60, 3025 (1999).
4. Sub-shell distributions of total electron capture and ionization cross sections B^{q+} ($q=1-4$)+H collisions→
M.Das, **M.Purkait** and C.R.Mandal→ **Eur.Phys.J.D**, 8,13 (2000).
5. Inelastic processes in the interactions of partially stripped ions of carbon, nitrogen and oxygen with atomic hydrogen at intermediate and high energies→
M.Purkait,A.Dhara, S.Sounda and C.R.Mandal→**J.Phys.B:At.Mol.Opt.Phys.**34, 1 (2001).
6. Charge transfer in the interactions of partially stripped ions with atoms at intermediate and high energies→
A.Dhara, **M.Purkait**, S.Sounda and C.R.Mandal→**Ind.J.Phys.**75B, 85 (2001).
7. Classical/Quantum correspondence in state selective charge transfer and ionization cross sections for Li^{q+} ($q=1-3$) ions with neutral hydrogen→
M.Purkait→ **Nucl. Instr. and Meth. in Phys.Res.B.** 207/2, 101 (2003).

8. Double electron capture cross sections into ground state in collisions of He^{2+} and Li^{3+} with He →
***M.Purkait* → Eur.Phys.J.D. 30, 11 (2004).**
9. State selective electron transfer in partially stripped ions with atoms at intermediate and high energies →
S.Sounda, A.Dhara, ***M.Purkait*** and C.R.Mandal → **Eur.Phys.J.D 38, 257 (2006).**
10. Double-charge transfer cross sections in inelastic collisions of bare ions with helium atoms → ***M.Purkait***, S.Sounda, A.Dhara and C.R.Mandal → **Phys.Rev.A 74, 042723 (2006).**
11. Electron excitation cross sections of atomic hydrogen by fully stripped projectile ions →
***M.Purkait* → Nucl. Instr. and Meth. in Phys.Res.B. 266, 1957 (2008).**
12. Double-electron-capture cross sections from helium by fully stripped projectile ions in intermediate-to-high energies → S.Ghosh, A.Dhara, C.R.Mandal and ***M.Purkait*** → **Phys.Rev.A 78, 042708 (2008).**
13. Double excitation of helium atom by proton and antiproton impact at energy 50-500 keV → ***M.Purkait* → Nucl. Instr. and Meth. in Phys.Res.B. 267, 32 (2009).**
14. Electron excitation of hydrogen atom by ions impact in the energy range 20-1000 keV/amu → S.Ghosh, ***M.Purkait***, S.Sounda, A.Dhara and C.R.Mandal → **Ind. J. Phys. 83, 769 (2009).**
15. Two electron capture cross sections into ground state in collision of bare projectile ions with helium atom → S.Ghosh, A.Dhara, C.R.Mandal and ***M.Purkait*** → **FIZIKA A 18, 9 (2009).**
16. Double charge transfer cross sections in collision of protons with helium atom → S.Ghosh, A.Dhara, ***M.Purkait*** and C.R.Mandal → **Ind. J. Phys. 84 231 (2010).**

17. 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)**.
18. Single-electron capture processes in collisions of He^{2+} , Li^{q+} ($q=1,2,3$), C^{6+} and O^{8+} ions with helium → R Samanta, **M Purkait** and C.R.Mandal → **Phys.Rev.A 83, 032706 (2011)**.
19. Electron capture by fast protons from helium like ions → R. Samanta and **M.Purkait** → **Eur. Phys. J. D 64, 311 (2011)**.
20. Single-electron capture from helium by fast protons → R. Samanta and **M. Purkait** → **Phys. Scr. 84, 065301 (2011)**.
21. Single-electron capture from hydrogen like atomic systems → R. Samanta, S. Jana, C. R. Mandal and **M. Purkait** → **Phys. Rev. A 85, 032714 (2012)**.
22. 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)**.
23. 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)**.
24. 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)**.
25. 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, 963 (2013)**
26. Double-differential cross sections for single ionization of helium by bare ion impact → S Jana, R Samanta and **M Purkait** → **Phys. Scr. 88, 055301(2013)**.
27. Projectile angular-differential cross sections for transfer and transfer-excitation in α -He collisions → S Jana and **M Purkait** → **Indian J.Phys. 88, 343 (2014)**.

28. Comparative study of single and double electron capture from atoms by fast bare ions → S Jana and **M Purkait** → **Indian J. Phys.** **89**, **641** (2015)
29. Four-body charge transfer processes in collisions of bare projectile ions with helium atoms → S Jana, C R Mandal and **M Purkait** → **J.Phys.B: At. Mol. Opt. Phys.** **48**, **045203** (2015)
30. 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)
31. 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)
32. 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)
33. 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)
34. Single and double electron capture in p-He and α -He collisions → S.Samaddar, S. Halder, A. Mondal, C. R. Mandal, **M. Purkait** and T.K.Das → **J.Phys.B: At.Mol. Opt. Phys.** **50**, **065202** (2017)