






Recent Publications (2007-2011)

Papers in international Refereed Journals

Year 2011

1. [Structural, thermal and optical behavior of 84 MeV oxygen and 120 MeV silicon ions irradiated PES](#) Original Research Article
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms, Volume 269, Issue 5, 1 March 2011, Pages 550-554
Kawaljeet Singh Samra, Sonika Thakur, **Lakhwant Singh**
 [PDF \(606 K\)](#)
2. [Synthesis and characterization of thermoluminescent Li₂B₄O₇ nanophosphor](#) Original Research Article
Journal of Luminescence, Volume 131, Issue 6, June 2011, Pages 1177-1183
Lakhwant Singh, Vibha Chopra, S.P. Lochab
 [PDF \(468 K\)](#)
3. [Photoluminescent and thermal behavior of 120 MeV silicon and 84 MeV oxygen ion irradiated PVDC](#) Original Research Article
Journal of Luminescence, Volume 131, Issue 4, April 2011, Pages 686-694
Kawaljeet Singh Samra, Sonika Thakur, **Lakhwant Singh**
 [PDF \(1149 K\)](#)



Year 2010

4. Heavy ion range anisotropy in muscovite mica”. *Nuclear Instruments and Methods in Physics Research B*, **268**, (2010)2617-2625.
Mohan Singh, Navjeet Kaur, **Lakhwant Singh**
 [PDF \(1159 K\)](#)
5. “Morphology of heavy ions irradiated mica”. *Radiation Physics and Chemistry*, **79**, (2010)1180-1188.
Mohan Singh, Navjeet Kaur, **Lakhwant Singh**
 [PDF \(1149 K\)](#)
6. “Verification of IMRT dose calculation in dose buildup region using AAA and PBC algorithms”. *Journal of Applied Clinical Medical Physics*, **11**, (2010)1-17.
Oinam, A. S. and **Lakhwant Singh**,



Year 2009

7. "Different shapes of tracks in phlogopite, biotite and soda-lime glass". *Indian Journal of Physics*, **83**, (2009)977-983.
Mohan Singh, Lakhwant Singh and Singh, B.
8. "Reliability of stopping power tables and codes for heavy ion in gases". *Indian Journal of Physics*, **83**, (2009)1099-1107.
Singh, M., Singh, B., Kaur, N. and Lakhwant Singh.
9. "Stopping Power contribution due to target and projectile excitation/ionization: a comparative study". *Indian Journal of Physics*, **83**, (2009)1109-1115.
Lakhwant Singh, Singh, M., Singh, B. and Kaur, N.
10. "Improvement of I^mRT MatriXX in terms of spatial resolution and large area acquisition for patient specific IMRT verification". *Journal of Medical Physics*, **34**, (2009)153-160.
Oinam, A. S., Lakhwant, Singh, Goswami, P. and Sharma, S.C.

Year 2008

11. Degradation of Ni (86 MeV) ion irradiated polystyrene
Journal of Non-Crystalline Solids **354** (01) (2008) 41-48
Lakhwant Singh, Kawaljeet Singh Samra, Ravinder Singh, Indira Solania, D. K. Avasthi
12. Microstructural modifications in swift ion irradiated PET.
Radiation Physics and Chemistry **77** (5) (2008) 575-580
Ravinder Singh, Kawaljeet Singh Samra, Ramneek kumar, **Lakhwant Singh**
13. Carbon (70 MeV) & Copper (120 MeV) ion irradiation effects in Makrofol-N
Radiation Effects & Defects in Solids **163** (8) (2008) 703-711
Lakhwant Singh, Kawaljeet Singh Samra, Ravinder Singh
14. Proton Irradiated Polystyrene As A Food Packaging Material
Journal of Plastic Film & Sheeting **23** (04) (2008) 285-296
Lakhwant Singh, Kawaljeet Singh Samra, Ravinder Singh And Ramneek Kumar
15. Opto-structural characterization of proton (3 MeV) irradiated polycarbonate and polystyrene
Radiation Physics and Chemistry **77** (03) (2008) 252-258
Lakhwant Singh and Kawaljeet Singh Samra
 [PDF \(347 K\)](#) |
16. Stopping power of polymers for heavy ions: a comparative study
Radiation Effects and Defects in Solids **163** (07) (2008) 605- 623
Mohan Singh and **Lakhwant Singh**
17. Proton (3 MeV) & copper (120 MeV) ion irradiation effects in low-density polyethylene (LDPE)
Radiation Physics and Chemistry **77** (01) (2008) 53-57
Ravinder Singh, Kawaljeet Singh Samra, Ramneek Kumar and **Lakhwant Singh**
 [PDF \(241 K\)](#)

Year 2007

18. Range and etching behaviour of swift heavy ions in polymers
Radiation Effects & Defects in Solids **162** (05) (2007) 333 - 339
Lakhwant Singh, Mohan Singh, Kawaljeet Singh Samra and Ravinder Singh
19. Surface and bulk structure characterization of proton (3 MeV) ion irradiated Polycarbonate.
Journal of Macromolecular Science, Part B: Physics **46** (05) 200 1041 – 1049
Lakhwant Singh and Kawaljeet Singh Samra
20. Structural characterization of swift heavy ion irradiated polycarbonate
Nuclear Instruments and Methods in Physics Research B **263** (02) (2007) 458-462
Lakhwant Singh and Kawaljeet Singh Samra
 [PDF \(263 K\)](#)
21. Optical and Structural modifications in heavy ion irradiated polystyrene
Journal of Macromolecular Science, Part B: Physics **46** (04) (2007) 749 - 759
Lakhwant Singh, Kawaljit Singh Samra and Ravinder Singh
 [PDF \(317 K\)](#)
22. Range and etching behaviour of swift heavy ions in polymers
Radiation Effects & Defects in Solids **162** (05) (2007) 333 - 339
Lakhwant Singh, Mohan Singh, Kawaljeet Singh Samra and Ravinder Singh
23. Opto-chemical response of CR-39 and polystyrene to swift heavy ion irradiation
Nuclear Instruments and Methods in Physics Research B **255** (2007) 350–356
Lakhwant Singh, Kawaljeet Singh Samra, Ravinder Singh