



A. Journal Articles

1. Aasi, J.*, Raja S. Sendhil et al.
Characterization of the LIGO detectors during their sixth science run
Classical and Quantum Gravity 32, 115012 (2015)
2. Aasi J.*, Raja S. Sendhil et al.
Narrow-band search of continuous gravitational-wave signals from Crab and Vela pulsars in virgo VSR4 data
Physical Review D 91, 022004(1-15) (2015)
3. Aasi J.*, Raja S. Sendhil et al.
Searching for stochastic gravitational waves using data from the two colocated LIGO Hanford detectors
Physical Review D 91, 022003(1-22) (2015)
4. Aasi J.*, Sendhil Raja S. et al.
Advanced LIGO
Classical and Quantum Gravity 32, 074001 (2015)
5. Aasi J.*, Sendhil Raja S. et al.
Searches for continuous gravitational waves from nine young supernova remnants
The Astrophysical Journal 813, 39 (2015)
6. Abdurrahim, Ghodke A.D.
Effect of undulators on the stored electron beam of Indus-2
Chinese Physics C 39, 077002(1-7) (2015)
7. Ajimsha R.S., Joshi M.P., Mohan S. Raj, Das A.K., Misra P., Kukreja L.M., Phase D.M.*
Band offset at TiO₂/MDMO PPV and TiO₂/PEDOT PSS interfaces studied using photoelectron spectroscopy
RSC Advances 5, 97891-97897 (2015)
8. Awasthi V.*, Pandey S.K.*, Kumar Shailendra, Mukherjee C., Gupta M.*, Mukherjee S.*
Evaluation of the band alignment and valence plasmonic features of a DIBS grown Ga-doped Mg_{0.05}Zn_{0.95}O/CIGSe heterojunction by photoelectron spectroscopy
Journal of Physics D: Applied Physics 48, 485305 (1-12) (2015)
9. Badapanda M.K., Tripathi A., Upadhyay R., Lad M., Hannurkar P.R.
High-power RF testing of 1-MW, 352.2-MHz continuous wave klystron amplifier
IEEE Transactions on Plasma Science 43, 3599-3607 (2015)
10. Bagchi S., Tayyab M., Upadhyay A., Ramakrishna B., Mandal T., Chakera J.A., Naik P.A., Gupta P.D.
Micrometre sized negative ion accelerator based on ultra-short laser pulse interaction with transparent solids
Phys. Rev. E 92, 051103(R) (2015)
11. Benerji N.S., Singh A., Varshnay N., Singh Bijendra
XeCl excimer laser with new prism resonator configurations and its performance characteristics
Review of Scientific Instruments 86, 073112 (2015)
12. Bhowmik R.N.*, Panda M.R.*, Yusuf S.M.*, Mukadam M.D.*, Sinha A.K.
Structural phase change in Co_{2.25}Fe_{0.75}O₄ spinel oxide by vacuum annealing and role of coexisting CoO phase on magnetic
Journal of Alloys and Compounds 646, 161-169 (2015)
13. Biswal R., Agrawal P.K., Dixit S.K., Nakhe S.V.
Generation of 1.5 W average power, 18 kHz repetition rate coherent mid-ultraviolet radiation at 271.2 nm
Applied Optics 54, 9613-9621 (2015)
14. Biswas, A.*, Maidul H.*, Tripathi S.*, De N.*, Rai S., Bhattacharyya D.*, Sahoo N.K.*
Study of interface correlation in W/C multilayer structure by specular and non-specular grazing incidence X-ray reflectivity measurements
Journal of Applied Physics 118, 165312(1-11) (2015)
15. Biswas D.*, Sinha A.K., Chakraborty S.*
Optimization of annealing temperature for high-j-based gate oxides using differential scanning calorimetry
Journal of Vacuum Science & Technology B 33, 052205(1-4) (2015)



16. Bommali R.K.*, Ghosh S.*, Vijaya Prakash G.*, Kanjilal D.*, Mondal P., Srivastava A.K., Srivastava P*.
Swift heavy ion irradiation induced microstructural modification and evolution of photoluminescence from Si rich a-SiNx:H
Materials Research Express 2, 046204 (2015)
17. Chandran S, Biswas B.
A double pole-gap design for low spherical aberration in thin solenoids
Nuclear Instruments and Methods in Physics Research A 798, 121-126 (2015)
18. Chatterjee A., Khamari S.K., Dixit V.K., Oak S.M., Sharma T.K.
Dislocation-assisted tunnelling of charge carriers across the Schottky barrier on the hydride vapour phase epitaxy grown GaN
Journal of Applied Physics 118, 175703(1-8) (2015)
19. Chatterjee Sanjib, Kumar Y. Pavan
Measurement of displacement and distance with a polarization phase shifting folded Twyman Green interferometer
Applied Optics 54, 9839-9843 (2015)
20. Chaube Rajeev
Kinematic design and performance of a target motion mechanism with its vacuum enclosure for pulsed ablation by high repetition rate laser
Journal of the Instrument Society of India 45, 176-179 (2015)
21. Chopade S.S.*, Nayak C.*, Bhattacharyya D.*, Jha S.N.*, Tokas R.B.*, Sahoo N.K.*, Deo M.N.*, Biswas A.*, Rai S.
RF plasma enhanced MOCVD of yttria stabilized zirconia thin films using octanedionate precursors and their characterization
Applied Surface Science 355, 82-92 (2015)
22. Das A.K., Misra P., Ajimsha R.S., Joshi M.P., Kukreja L.M.
Effects of electron interference on temperature dependent transport properties of two dimensional electron gas at MgZnO/ZnO interfaces
Applied Physics Letters 107, 102104(1-4) (2015)
23. Das A., Mukherjee C., Kamparath R., Bose A., Singh, Shreyashkar D., Phase D.M.*, Rai S.K., Joshi S.C., Ganguli T.
Effect of oxygen ion beam bombardment on depth resolved hydrogen distribution in stoichiometric alumina thin films, deposited by e-beam evaporation
Journal of Vacuum Science & Technology B 33, 052002(1-6) (2015)
24. Fakhri A.A., Kant P., Ghodke A.D., Singh Gurnam
Beam emittance reduction during operation of Indus-2
Review of Scientific Instruments 86, 113305(1-10) (2015)
25. Ghodke D.V., Patel R.*, Senecha V.K., Dutta P.*, Kumar R.*, Arya B.K., Joshi S.C.
Study of RF source ignition system with impedance matching network for RF driven H- ion Source
International Journal of Innovative Research in Computer and Communication Engineering 3, 12090-12099 (2015)
26. Gupta P.K., Patel H.S., Ahlawat S.
Light based techniques for improving health care: studies at RRCAT
Proceedings of the National Academy of Sciences 85, 489-499 (2015)
27. Haque S.M.*, Sagdeo P.R.*, Sagdeo A., Jha S.N.*, Bhattacharyya D.*, Sahoo N.K.*
Effect of oxygen partial pressure on properties of asymmetric bipolar pulse dc magnetron sputtered TiO₂ thin films
Applied Optics 54, 3817-3825 (2015)
28. Jana D., Porwal S., Jain A.*, Oak S.M., Sharma T.K.
Origin of fine oscillations in the photoluminescence spectrum of 2-dimensional electron gas formed in AlGaIn/GaN high electron mobility transistor structures
Journal of Applied Physics 118, 164502(1-6) (2015)
29. Jena S.K., Husain R., Gandhi M.L., Agrawal R.K., Yadav S., Ghodke A.D.
Beam based alignment and its relevance in Indus-2



- Review of Scientific Instruments* **86**, 093303(1-7) (2015)
30. Jena S.K., Ghodke A.D.
Observation and mitigation of ion trapping in Indus-2
Pramana: Journal of Physics **85**, 1193-1205 (2015)
31. **Joshi-Saha A.*, Reddy K.S.*, Petwal V.C., Dwivedi J.**
Identification of novel mutants through electron beam and gamma irradiation in chickpea (*Cicer arietinum L.*)
Journal of Food Legumes **28**, 1-6 (2015)
32. Kamal C., Chakrabarti A., Ezawa M.*
Aluminene as highly hole doped graphene
New Journal of Physics **17**, 083014(1-7) (2015)
33. Khamari S.K., Porwal S., Oak S.M., Sharma T.K.
A spin-optoelectronic detector for the simultaneous measurement of the degree of circular polarization and intensity of a laser beam
Applied Physics Letters **107**, 072108(1-5) (2015)
34. Khan K.M., Majumder S.K., Gupta P.K.
Cone shell Raman spectroscopy (CSRS) for depth-sensitive measurements in layered tissue
Journal of Biophotonics **8**, 889-896 (2015)
35. Khan S., Jayabalan J., Singh Asha, Yogi R., Chari R.
Probing carrier dynamics of individual layers in a heterostructure using transient reflectivity
Applied Physics Letters **107**, 121905(1-5) (2015)
36. Khurana G.*, Misra P., Kumar N.*, Kooriyattil S.*, Scott J.F.*, Katiyar R.S.*
Enhanced resistive switching in forming-free graphene oxide films embedded with gold nanoparticles deposited by electrophoresis
Nanotechnology **27**, 015702 (2015)
37. Khan S., Asha Singh, Rachana Yogi, Jayabalan J. and Rama Chari,
Studies on non-radiative recombination in a two-dimensional electron gas formed in AlGaAs-GaAs heterostructure
Int. J. Appl. Eng. Res., **10**, 27646-27649 (2015)
38. Kumar Abhay, Ganesh P., Kaul R., Sindal B.K., Yedle K., Bhatnagar V.K., Sankar P.
Ram, Singh M.K., Rai S.K., Bose A., Sridhar R., Joshi S.C., Kukreja L.M.
New brazing recipe for ductile niobium-316L stainless steel joints
Welding Journal **94**, s241-s249 (2015)
39. Kumar J., Mahakud R., Kumbhkar U., Prakash O., Dixit S.K., Nakhe S.V.
Analysis of experimental results on the adulteration measurement by an etched fiber Bragg grating sensor
Optik **126**, 5698-5702 (2015)
40. Kumar Pankaj, Saini V.K., Purbia G.S., Prakash O., Dixit S.K., Nakhe S.V.
Saturation absorption spectroscopy of lithium in hollow cathode lamp
Advanced Science Letters **21**, 2548-2550 (2015)
41. Mahakud R., Kumar J., Prakash O., Dixit S.K., Nakhe S.V.
FBG inscription by a biprism interferometer: analysis and experiment
Applied Physics B **121**, 283-295 (2015)
42. Mandal S., Kumar S., Bhargava P., Premsingh C.H., Paul C.P., Kukreja L.M.
An experimental investigation and analysis of PTAW process
Materials and Manufacturing Processes **30**, 1131-1137 (2015)
43. Maniraj M.*, D' Souza S.W.*, Rai A.*, Schlagel D.L.*, Lograsso T.A.*, Chakrabarti A.
Unoccupied electronic structure of Ni₂MnGa ferromagnetic shape memory alloy
Solid State Communications **222**, 1-4 (2015)
44. Mirji S.*, Bennal A.S.*, Krishnananda S., Badiger N.M.*, Tiwari M.K., Lodha G.S.
Determination of K-L vacancy transfer probabilities of some 3d elements using synchrotron radiation
Canadian Journal of Physics **93**, 760-764 (2015)



45. Mishra R.K., Raju D.V.S., Nakhe S.V.
Note: a novel and robust circuit for jitter reduction in copper vapor laser system
Review of Scientific Instruments **86**, 116107(1-4) (2015)
46. Mohan S. Raj, Joshi M.P., Shalu C.*, Ghosh C., Mukharjee C., Kukreja L.M.
Charge transport properties of MDMO PPV thin films cast in different solvents
Journal of Polymer Science Part B: Polymer Physics **53**, 1431-1439 (2015)
47. Mondal K., Banerjee Arup, Fortunelli A.*, Ghanty T.K.*
Does enhanced oxygen activation always facilitate CO oxidation on gold clusters
Journal of Computational Chemistry **36**, 2177-2187 (2015)
48. Nayak M.K., Sahu T.K.*, Nair H.G.*, Nandedkar R.V.*, Bandyopadhyay T.*, Tripathi R.M.*, Hannurkar P.R., Sharma D.N.*
Bremsstrahlung source term estimation for high energy electron accelerators
Radiation Physics and Chemistry **113**, 1-5 (2015)
49. Panda M.R.*, Bhowmik R.N.*, Singh Harishchandra, Singh M.N., Sinha A.K.
Air annealing effects on lattice structure, charge state distribution of cations, and room temperature ferrimagnetism in the ferrite composition
Materials Research Express **2**, 036101(1-11) (2015)
50. Pandey A.H., Srivastava A.K., Sinha A.K., Gupta S.M.
Investigation of structural, dielectric and ferroelectric properties of Gd-doped lead magnesium niobate ceramics
Materials Research Express **2**, 096303(1-12) (2015)
51. Pandey S.K.*, Awasthi V.*, Sengar B.S.*, Garg V.*, Sharma P.*, Kumar Shailendra, Mukherjee C., Mukherjee S.*
Band alignment and photon extraction studies of Na-doped MgZnO/Ga-doped ZnO heterojunction for light-emitter applications
Journal of Applied Physics **118**, 16530(1-8) (2015)
52. Patheja P., Dasgupta R., Dube A., Ahlawat S., Verma R.S., Gupta P.K.
The use of optical trap and microbeam to investigate the mechanical and transport characteristics of tunneling nanotubes in tumor spheroids
Journal of Biophotonics **8**, 694-704 (2015)
53. Prasad N.V.*, Puli V.S.*, Pradhan D.K.*, Gupta S.M., Prasad G.*, Katiyar R.S.*, Kumar G.S.*
Impedance and Raman spectroscopic studies on La-modified BLSF ceramics
Ferroelectrics **474**, 29-42 (2015)
54. Prasad Y.B.S.R., Barnwal S., Naik P.A., Gupta P.D., Bolkhovitinov E.A.*, Rupasov A.A.*
Calculation of self-generated magnetic fields in laser-produced plasmas
Journal of Russian Laser Research **36**, 395-402 (2015)
55. Rai H.M.*, Late R.*, Saxena S.K.*, Mishra V.*, Kumar R.*, Sagdeo P.R.*, Sagdeo A.
Room temperature magnetodielectric studies on Mn-doped LaGaO₃
Materials Research Express **2**, 096105 (2015)
56. Raja K.*, Mary J.M.*, Jose M.*, Verma Sunil, Prince A.A.M.*, Ilangovan K.*, Sethusankar K.*, Jerome D.S.*
Sol gel synthesis and characterization of {dollar}-Fe₂O₃ nanoparticles
Superlattices and Microstructures **86**, 306-312 (2015)
57. Ramakrishna B., Tayya M., Bagchi S., Mandal T., Upadhyay A., Weng S.M.*, Murakami M.*, Cowan T.E.*, Chakera J.A. *et al*
Filamentation control and collimation of laser accelerated MeV protons
Plasma Physics and Controlled Fusion **57**, 125013(1-7) (2015)
58. Rani E., Ingale A., Chaturvedi A., Joshi M.P., Kukreja L.M.
Resonance Raman mapping as a tool to monitor and



- manipulate Si nanocrystals in Si-SiO₂ nanocomposit
Applied Physics Letters **107**, 163112(1-4)
(2015)
59. Reddy V.R.*, Sharma K.*, Gupta A.*, Ganguli T.,
Avasthi D.K.*, Kulriya P.K.*, Banerjee A., Ganesan
V.*
Swift heavy ion induced crystallographic tilt and site-
disorder in epitaxial magneto-electric GaFeO₃ thin
films
Journal of Physics D: Applied Physics **48**,
375001(1-7)(2015)
60. Riscob B.*, Bhaumik I., Ganesamoorthy S.*, Bhatt R.,
Vijayan N.*, Zimik K.*, Karnal A.K.,
Bhagavannarayanad G.*, Gupta P.K.
Crystal growth of Ru-doped congruent LiNbO₃ and
investigation of crystalline perfection and optical
properties
Journal of Applied Crystallography **48**, 1753-1760
(2015)
61. Sahu K., Sharma Mrinalini, Dube A., Gupta P.K.
Topical antimicrobial photodynamic therapy
improves angiogenesis in wounds of diabetic mice
Lasers in Medical Science **30**, 1923-1929
(2015)
62. Sahu K., Sharma Mrinalini, Gupta P.K.
Modulation of inflammatory response of wounds by
antimicrobial photodynamic therapy
Laser Therapy **24**, 201-208 (2015)
63. Saini V.K., Kumar P., Sharangpani K.K., Dixit S.K.,
Abhinandan L., Nakhe S.V.
Studies on pulsed and CW optogalvanic
effects in in-house developed see-through
lithium hollow cathode
Advanced Science Letters **21**, 2609-2612
(2015)
64. Sharma P., Verma Y., Kumar S., Gupta P.K.
Absolute velocity measurement using three-beam
spectral-domain Doppler optical coherence
tomography
Applied Physics B **120**, 539-543 (2015)
65. Sharma P.*, Satapathy S., Varshney D.*, Gupta P.K.
Effect of sintering temperature on structure and
multiferroic properties of Bi_{0.825}Sm_{0.175}FeO₃
ceramics
Materials Chemistry and Physics **162**, 469-476 (2015)
66. Shukla K.K.*, Shahi P.*, Gopal S.*, Kumar A.*, Ghosh
A.K.*, Singh R.*, Sharma N.*, Das A.*, Sinha A.K.
Magnetic and optical properties of Fe doped
crednerite CuMnO₂
RSC Advances **5**, 83504-83511 (2015)
67. Singh C.P., Bindra K.S.
Saturation and reverse saturable absorption in
semiconductor doped glass and its application to
parallel logic gates
Optical and Quantum Electronics **47**, 3313-3321
(2015)
68. Singh M.K.
Simulating growth morphology of urea crystals from
vapour and aqueous solution
CrystEngComm **17**, 7731-7744 (2015)
69. Singh M.N., Sinha A.K., Ghosh Harnath
Determination of transition metal ion distribution in
cubic spinel Co_{1.5}Fe_{1.5}O₄ using anomalous x-ray
AIP Advances **5**, 087115(1-9)(2015)
70. Singh Rashmi, Singh M.K., Kohli D.K., Singh Ashish,
Bhartiya S., Agarwal A.K.*, Gupta P.K.
Development of hydrophobic platinum-doped
carbon aerogel catalyst for hydrogen deuterium
exchange process at high pressure
Current Science **109**, 1860-1864 (2015)
71. Singh S., Tiwari V.B., Kale Y.B., Mishra S.R., Rawat
H.S.
Investigation of cold collision in a two isotope
magneto-optical trap for Krypton atoms
*Journal of Physics B: Atomic, Molecular &
Optical Physics* **48**, 175302(1-7) (2015)
72. Singh S.D., Nandanwar V.*, Srivastava H.,
Yadav A.K.*, Bhakar A.*, Sagdeo P.R.*, Sinha A.K.,
Ganguli T.
Determination of the optical gap bowing
parameter for ternary Ni_{1-x}Zn_xO cubic rocksalt solid
solutions
Dalton Transactions **44**, 14793-14798 (2015)



73. Soharab M., Bhaumik I., Bhatt R., Saxena A., Karnal A.K., Satapathy S., Gupta P.K.
Effect of Yb doping on the crystal structure, polarization dependent optical absorption and photoluminescence of Yb:YVO₄ single crystal grown by
Journal of Alloys and Compounds **469**, 766-771 (2015)
74. Sundar R., Hedao P., Ranganathan K., Soni J.K., Bindra K.S., Oak S.M.
Modular pump geometry for diode side-pumped high-power Nd:YAG rod laser
Applied Optics **54**, 9855 (2015)
75. Sundar S., Chattopadhyay M.K., Chandra L.S. Sharath, Roy S.B.
High field paramagnetic Meissner effect in Mo_{100-x}Re_x alloy superconductors
Superconductor Science & Technology **28**, 075011(1-11) (2015)
76. Sundar S., Chattopadhyay, M.K., Sharath Chandra, L.S., Roy, S.B.
Magnetic irreversibility and pinning force density in the Mo_{100-x}Re_x alloy superconductors
Physica C: Superconductivity and its Applications **519**, 13-23 (2015)
77. Sundar S., Sharath Chandra, L.S., Chattopadhyay M.K., Roy S.B.
Evidence of multiband superconductivity in the $\{dollar\}$ -phase Mo_{1-x}Re_x alloys
Journal of Physics: Condensed Matter **27**, 045701(1-9) (2015)
78. Talwar S., Subrahmanyam V.V.V., Saini V.K., Sharangpani K.K., Nakhe S.V.
Development of time of flight mass spectrometer for studies on lithium isotopes
Advanced Science Letters **21**, 2556-2560(5) (2015)
79. Tiwari M.K., Das G., Bedzyk M.J.*
X-ray standing wave analysis of nanostructures using partially coherent radiation
Applied Physics Letters **107**, 103104(1-5) (2015)
80. Tiwari P.*, Kane S.R., Merh B.N., Mittal A.K.*
Epics based software for electrical resistivity measurement of alloys and thin films
International Journal of Advanced Research in Science, Engineering **2**, 769- 775 (2015)
81. Tiwari S.K., Ram S.P., Rao K.H.* , Mishra S.R., Rawat H.S.
Generation and focusing of a collimated hollow beam
Optical Engineering **54**, 115111(1-7) (2015)
82. Tiwari S.P., Bhartiya S., Mukherjee C., Singh M.N., Sinha A.K., Rai V.N., Srivastava A.K.
Fabrication of large area plasmonic nanoparticle grating structure on silver halide based transmission electron microscope film and its application as a surface
Journal of Applied Physics **118**, 064303(1-8) (2015)
83. Venkateswara Rao G.*, Vijaya N.*, Joshi A.S., Shashikala H.D.* , Jayasankar C.K.*
Mechanical properties of Nd³⁺-doped phosphate laser glasses
Physics and Chemistry of Glasses: European Journal of Glass Science **56**, 81-84 (2015)
84. Verma V.P., Petwal V.C., Gothwal P., Seema M., Malviya K.K., Dwivedi J.
Effect of electron beam irradiation on microbial decontamination and phytochemical contents of spices
International Journal of Tropical Agriculture **33**, 2999-3003 (2015)
85. Yadav S., Puntambekar T.A., Varde P.V.*
Development of front-end software for beam parameters measurement for Indus-2 electron synchrotron
International Journal of Computer Applications **123**, 20-22 (2015)

B. Invited Talk

1. Badapanda M.K.
Feed forward control of 100 kV, 25 Amp DC power supply for 1 MW, 352 MHz test facility
Recent advances in Control and Instrumentation (RAICI 2015), Bhubaneswar, Dec., 21-26, 2015



2. Bagchi S., Tayyab M. Upadhyay A., Chakera J.A., Naik P.A., Gupta P.D.
Initial results on heavy ion acceleration using laser plasma accelerator
DAE-BRNS Theme Meeting on Ultrafast Science 2015 (UFS-2015), Kolkata, Nov., 19-21, 2015
3. Ghosh Haranath
Fe-based superconductors and nematic order
International Conference on Condensed Matter and Applied Physics, Bikaner, Oct., 30-31, 2015
4. Jain Beena
Healing by lasers
"Kan Aur Prakash Vigyan Saptah", under the Diamond Jubilee Celebrations of Department of Atomic Energy, Khargonne, July, 13-14, 2015
5. Joshi S.C.
Superconducting Cavity Development at RRCAT
Indian Particle Accelerator Conference (InPAC)-2015, Mumbai, Dec., 21-24, 2015
6. Kukreja L.M., Paul C.P. Recent developments in Laser additive manufacturing
International Conference on Application of Lasers in Manufacturing (CALM 2015), New Delhi, Sept., 9-11, 2015
7. Misra P.
Rare earth oxides as high-k gate dielectric for logic and memory devices
France-India Symposium on Correlated Oxide Materials (FISCOM-2015), Montpellier, France, July, 15-17, 2015
8. Mukherjee C., Rajiv K.
Development of specialised optical coatings at RRCAT
Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015
9. Mukherjee C.
Thin film based optical coatings; materials and process issues
DAE-BRNS 3rd National Workshop on Materials Chemistry (NWMC: OPT-MAT), Mumbai, Nov. 20-21, 2015
10. Mundra G., Sharma S.D., Bhatnagar V., Gupta R., Veerbhadraiah T., Choudhary S., Ramteke S., Sharma Sanjay, Yedle K., Sisodia B., Padiyar A.S., Chouksey S., Dwivedi J., Joshi S.C., Kumar R., Ram Sankar P., Sridhar R., Tripathi P.K., Thakurta A.C.
Manufacturing of ultra high vacuum compatible accelerator and laser components
National Symposium on Vacuum Technology and its applications to Electron Beams (IVSNS-2015), Mumbai, Nov., 18-20, 2015
11. Naik P.A.
Studies on ion acceleration using ultra-short high intensity laser pulses at RRCAT
Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015
12. Naik P.A., Bindra K.S.
Laser safety aspects in research, development, and applications
2nd DAE Safety & Occupational Health Professionals Meet, RRCAT, Indore, Oct., 5-7, 2015
13. Oak S.M.
Laser light in the service of DAE
Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015
14. Sendhil Raja S.
Laser based instrumentations
Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015
15. Singh Nageshwar
Spectral stability of high-repetition rate tunable dye laser
Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015
16. Sridhar R.
Ultra high vacuum systems of Indus accelerators and its operational experience
National Symposium on Vacuum Technology and its applications to Electron Beams (IVSNS-2015), Mumbai, Nov., 18-20, 2015
17. Swami M.K.
Spectroscopic Mueller matrix polarimetry of turbid media
Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015



C. Seminar/Conference Presentation

C1.1 Proceedings of DAE-BRNS National Laser Symposium (NLS-24), Indore, Dec., 2-5, 2015

1. Ahirwar B.K.*, Khan S., Jayabalan J., Singh Asha, Shrivastava M.*, Chari R.,
Studies on the effect of laser parameters on pump-probe reflectivity signal using labview interface
2. Ajimsha R.S., Das A.K., Mishra P., Rajiv K., Joshi M.P., Singh Bijendra, Kukreja L.M.
Studies on highly conducting Ga doped ZnO thin films grown by PLD plasmonic applications
3. Aneesh K., Nigam S., Barnwal S., Prasad Y.B.S.R., Sharma M.L., Kushwaha R.P., Tripathi P.K., Navathe C.P., Vora H.S., Naik P.A., Gupta P.D.
Development of an ultra-compact capillary discharge soft x-ray laser
4. Anthony V.W.*, Singh M.*, Mishra S.K., Paul C.P., Singh Bijendra, Kukreja L.M.
Electrochemical behavior of laser additive manufactured Ti-structures under simulated body fluid environment
5. Bagchi S., Tayyab M., Upadhyay A., Mukharjee C., Chakera J.A., Naik P.A., Gupta P.D.
Novel thin foil target for quasi-monoenergetic ion acceleration
6. Bagchi S., Tayyab M., Upadhyay A., Mukharjee C., Chakera J.A., Naik P.A., Gupta P.D.
Observation of proton flux enhancement in metal-dielectric double layered targets
7. Batham S., Verma Shweta, Rao B.T., Anamika H., Kaul R., Singh Bijendra
Plasmonic metal nanoparticles synthesis in liquid media by pulsed laser irradiation of metal salts
8. Benerji N.S., Singh Bijendra
Excimer laser with micro-lens- array (MLA) cavity beam homogenizer
9. Benerji N.S., Varshnay N.K., Singh A., Singh Bijendra
Development of wide aperture XeCl excimer laser with high misalignment tolerance and pointing stability for material processing applications
10. Bhardwaj V., Kumar Prabhat, Bairwa M., Singh Rajpal, Upadhyaya B.N., Bindra K.S., Oak S.M.
A mathematical model to study the keyhole formation in pulsed Nd:YAG laser welding of SS 316L material
11. Bhatt R., Verma P.*, Soharab M., Bhaumik I., Karnal A.K., Gupta P.K.
Temperature dependent refractive index studies on strontium barium niobate single crystal
12. Bhaumik I., Soharab M., Bhatt R., Sah S.*, Karnal A.K., Gupta P.K.
Effect of Al doping on the crystal structure and band-gap of b-Ga₂O₃ single crystal
13. Biswal R., Agrawal P.K., Mishra G.K., Prakash O., Dixit S.K., Nakhe S.V. Development of 18 kHz repetition rate, watt level average power coherent UV sources at 255.3, 271.2 & 289.1 nm by frequency conversion of Cu-HBr laser radiations
14. Chakraborty A., Mishra S.R., Ram S.P., Tiwari S.K., Rawat H.S.
Trapping laser cooled ⁸⁷Rb atoms in ring trap
15. Chaubey S., Biswas P., Bandyopadhyaya S., Kher S., Oak S.M.
Comparative study of gamma radiation effects on ultraviolet and CO₂ laser written long period fiber gratings (LPGs) in photosensitive fibers
16. Choubey A., Bhardwaj V., Jain R.K., Vishwakarma S.C., Kaul R., Upadhyaya B.N., Bindra K.S., Oak S.M.
Study on Nd:YAG laser welding of zircaloy-4 using temporal pulse shaping for nuclear applications
17. Daiya D., Sharma J., Patidar R.K., Sharma A.K., Naik P.A., Gupta P.D.
Development and characterization of a far field injection based four pass Nd:phosphate glass laser amplifier



18. Das G., Kumar Manoj, Biswas A.K., Khooha A., Mondal P., Tiwari M.K.
Characterization of laser synthesised TiO₂ nanostructures by synchrotron X-ray standing wave technique
19. Dave I., Bhandare R., Sendhil Raja S.
Design and development of control interface board and application software for laser material processing applications
20. Dave I., Bhandare R., Shyam Sundar S., Sendhil Raja S.
Design and development of FPGA based dual phase lock-in amplifier
21. Debnath C., Kar S., Verma S., Bartwal K.S., Gupta P.K.
Synthesis of lithium niobate polymer composites for optical applications
22. Deshmukh P., Satapathy S., Singh M.K., Gupta P.K.
Fabrication of highly transparent Yb doped Yttria ceramics
23. Deshmukh P., Satapathy S., Dubey S., Singh M.K., Gupta P.K.
Synthesis and characterization of high luminescent (BaSrSiO₄):Eu²⁺ nanophosphor
24. Dhawan R., Modi M.H., Agarwal S., Misra P., Joshi M.P.
Studies on NbC thin films deposited by pulsed laser ablation
25. Dubey V.K., Saxena P., Singh I.J., Vora H.S.
Time delay generator unit for synchronisation of DPSSL and CVLs in MOPA for resonant isotope spectroscopy experiments
26. Dwivedi T.*, Daga S.*, Nilaya J.P.*, Biswas D.J.*, Benerji N.S.*
On the operation of two TEA CO₂ lasers with a controllable delay using a magnetic switch
27. Ganesamoorthy S.*, Bhatt R., Bhaumik I., Soharab M., Karnal A.K., Gupta P.K.
Effect of dopant concentration, VTE and poling on the optical absorption of Er doped congruent LiNbO₃ single crystal
28. Ganesh P., Sundar R., Gupta R.K., Bhardwaj V.K., Sunil Kumar*, Agrawal D.K., Nagpure D.C., Upadhyay B.N., Kumar Manoj, Raghvendra G.*, Kaul R., Ram Sankar P., Ranganathan K., Kain V.*, Bindra K.S., Oak S.M., Kukreja L.M.
Laser surface treatment for rejuvenation of fatigue and corrosion damage
29. George J., Pant B.C., Rajan C., Sendhil Raja S., Gupta P.K.
Development of monolithic intensity stable 100 mW laser at 1064 nm
30. Goyal R.*, Singh Gurvinderjit, Tiwari V.S., Gupta P.K.
Thermo-optical investigations of Nd:YAG and Nd:Y₂O₃ transparent ceramics
31. Gupta Pradeep K., Singh C.P., Singh A.J., Sharma S.K., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Multiple operation regimes in high average power all-normal dispersion Ytterbium doped fiber oscillator
32. Gurram S., Kuruvilla A., Singh Rajpal, Upadhyaya B.N., Bindra K.S., Oak S.M.
Development and analysis of eye-safe Yb-free Er-doped LMA fiber laser emitting ~25 W of CW power
33. Hardel A., Rao B.T., Verma Shweta, Sonal B., Singh B.N., Kaul R., Singh Bijendra
Effect of nanosecond pulsed laser irradiation on plasmon resonance characteristics of gold nanorods
34. Haedoo P., Ranganathan K., Soni J.K., Bindra K.S., Oak S.M.
Performance characteristics of water jet impingement cooling for fiber coupled laser diode
35. Ittoop M.O., Raj Mohan S., Verma A., Joshi M.P., Dhani T.S., Kukreja L.M., Singh Bijendra
Automation of photoconductivity experimental setup using LabVIEW
36. Jangir R., Tiwari P., Rai S.K., Mondal P., Ganguli T.
Effect of initial nucleation on the growth direction of In₂O₃ micro/nanowires



37. Joshi M.J., Valecha A., Deshpande P.P., Navathe C.P.
Automation software for laser beam health monitoring for ultrafast plasmonic experiments
38. Kalkal Y., Kumar Vinit
Optimization of parameters of a terahertz Čerenkov free-electron laser
39. Karmakar S., Jain N.*, Pathak S.K., Selvamani R., Singh Gurvinderjit, Kurchania R. *, Malik M.M., Gupta S.M., Tiwari V.S., Gupta P.K.
Effect of MgO on the absorption coefficient of Nd:YAG ceramic
40. Khan S., Jayabalan J., Singh Asha, Chari R.
Free carrier and excitonic recombination in a $Al_{0.7}Ga_{0.3}As$ -GaAs heterostructure at low temperature and its effect on ultrafast dynamics of two-dimensional electron gas
41. Khare K.M., Tiwari S.*, Jain B., Gupta P.K.
FPGA-Based real time temperature monitoring system for biomedical instrumentation applications
42. Khare R., Shukla P., Shrivastava V.K., Tiwari G., Nakhe S.V.
Role of water-chiller unit on the angular-stability of copper vapour laser beam
43. Kulkarni A.P., Pathan A.I.*, Padiyar A.S., Kamath M.P., Joshi A.S., Mundra G., Naik P.A., Gupta P.D.
Dynamic stress measurements using photoelastic method and FEM stress analysis in flash lamps of optical amplifiers used in high energy high power laser
44. Kumar Atul, Paul C.P., Kukreja L.M., Singh Bijendra
Numerical simulation of laser additive manufacturing of overlap tracks geometry using improved mass addition approach
45. Kumar Atul, Shukla N., Kamath M.P., Prasad Y.B.S.R., Singh P.K., Jain S., Satapathy S., Joshi A.S., Naik P.A., Gupta P.K., Gupta P.D.
Simultaneous measurements of particle velocity using PVDF detector and shadowgraphy techniques
46. Kumar Atul, Singh P.K., Prasad Y.B.S.R., Kamath M.P., Upadhyay J., Upadhyay A., Jain., Shukla N., Joshi A.S., Vora H.S., Naik P.A., Navathe C.P., Gupta P.D.
Equation of state studies of aluminum by simultaneous measurements of shock velocity using indigenously developed streak camera and particle velocities using shadowgraphy and comparison with simulations
47. Kumar P., Saini V.K., Purbia G.S., Prakash O . , Dixit S.K. Hyperfine structure studies of ^{171}Yb and ^{173}Yb isotopes of Ytterbium excited states in Yb/Ne hollow cathode discharge
48. Kumar U., Chaterji U., Mishra S.K., Paul C.P., Prem Singh C.H., Kukreja L.M., Singh Bijendra
Laser additive manufacturing of prototype Hip-implant
49. Mahajana S.*, Vohrab T.*, Vora P.*, Trivedia V.*, Gupta P.K., Verma Y., Chhaniwala V.*, Javid B.*, Ananda A.*
Self-Referencing Sagnac digital holographic microscope for dynamic imaging of biological samples
50. Malik A., Rajan C., Sendhil Raja S., Gupta P.K.
Fluorescence based cell counting of white blood cells on a micro-fluidic platform
51. Mandal T., Arora V., Rao B.S., Chakera J.A., Naik P.A., Gupta P.D.
Role of amplified spontaneous emission prepulse on collimated MeV fast electron beam at grazing incidence laser solid interaction
52. Mishra S.K., Kumar U., Paul C.P., Kukreja L.M., Singh Bijendra
Investigating rastering patterns on component deformation during laser additive manufacturing
53. Misra P., Jain R.K., Singh Rajpal, Upadhyaya B.N., Bindra K.S., Oak S.M.
Generation of 150 W single mode all-fiber Yb-doped CW fiber laser at 1090nm in double end pumping configuration
54. Misra P., Das A.K., Joshi M.P., Singh Bijendra, Kukreja L.M.
Size dependent room temperature photoluminescence from ZnO quantum dots



55. Nair A., Kumar A., Jain S., Kulkarni A.P., Kumbhare M.N., Singh P.K., Kamath M.P., Joshi A.S., Naik P.A., Gupta P.D.
In situ studies of fluorescence for understanding the performance of Neodymium glass amplifiers
56. Nigam S., Aneesh K., Sharma M.L., Barnwal S., Navathe C.P., Naik P.A., Gupta P.D.
High voltage pulsed power conditioning system for an ultra-compact soft x-ray laser
57. Ojha R.*, Deshpande P.P., Bhanage V.P., Jain P., Navathe C.P.
High voltage capacitor bank power supply hardware emulator using microcontroller
58. Pandey A., Sathe V.*, Gupta S.M.
Raman spectroscopic study of $Pb_{1-x}Gd_x(Mg_{1+x/3}Nb_{2-x/3})O_3$ ceramics
59. Pathak Ayukt Kumar, Deshpande P.P., Bhanage V., Tiwari S., Joshi M., Bundel H., Navathe C.P.
Software framework for automation of laser physics experiments
60. Patidar R.K., Sharma A.K., Naik P.A., Gupta P.D.
Performance characteristics of a 10Hz repetition rate three-stage optical parametric amplifier for chirped laser pulses
61. Patidar R.K., Sharma A.K., Sharma J., Naik P.A., Gupta P.D.
Studies on the effect of injection beam pointing errors on the regenerative amplifier output
62. Prakash O., Kumar J., Agrawal S.K., Mahakud R., Mokhariwale A., Dixit S.K., Nakhe S.V.
Effect of annealing steps on the reflectivity of thermally regenerated fiber Bragg gratings
63. Prasad Y.B.S.R., Barnwal S., Yadav Y.*, Kamath M.P., Joshi A.S., Goswami M.*, Naik P.A., Gupta P.D.
Observation of Jet like structures in the Laser irradiated Soda lime targets
64. Prem Singh C.H., Bhargava P., Paul C.P., Kukreja L.M., Singh Bijendra
Design feasibility studies of laser additive manufacturing nozzle for under water applications
65. Raj Mohan S., Joshi M.P., Dharmi T.S., Awasthi V., Kukreja L.M.
Charge transport in lead sulfide nanoparticles dispersed MDMO PPV thin films
66. Rao B.T., Verma Shweta, Thakur T., Satapathy S., Singh M.K., Rai S.K., Phase D.M., Kaul R., Singh Bijendra
Studies on optical properties of Au-ZnO nanocomposite structures
67. Saha D.D., Singh Bhupinder, Ansari M.S., Navathe C.P.
Pulsed discharge circuit for flashlamp preionization
68. Sahu V.K., Misra P., Ajimsha R.S., Das A.K., Joshi M.P., Singh Bijendra, Kukreja L.M.
Pulse laser deposition of $Ni_{0.5}Zn_{0.5}O$ for resistive memory switching application
69. Saini V.K., Dewangan S., Subrahmanyam V.V.V.
Absorption and fluorescence studies of Rhodamine-6G : Cresyl Violet-670 dye system in ethanol matrix using pulsed laser excitation
70. Saraf T.*, Humbe A.V.*, Birajdar S.D.*, Sundar R., Oak S.M., Jadhav K.M.*
Synthesis and magnetic characterization of the Nd:YAG laser irradiated nanocrystalline zirconium substituted nickel spinel ferrite
71. Saxena S., Rao B.S., Chakera J.A., Naik P.A.
Single shot measurement of electric field profile of intense terahertz radiation pulse
72. Selvamani R., Singh Gurvinderjit, Tiwari V.S., Gupta P.K.
Refractive index investigations on $Na_{0.5}Bi_{0.5}TiO_3$ single crystal grown by flux growth method
73. Sharma Ashutosh, Panwar C.B., Arya R., Oak S.M.
A reliable triggering scheme for arc lamps based on burst of pulses
74. Sharma C.*, Khakha A., Chatterjee G.A., Porwal S., Khamari S.K., Dixit V.K., Sharma T.K., Oak S.M.
Laser beam alignment using radiation hard GaAs quadrant p-i-n photodetector



75. Sharma J., Daiya D., Sharma A.K., Patidar R.K., Naik P.A., Gupta P.D.
Experimental studies on time multiplexed chirped pulse laser amplification
76. Sharma S.K., Singh A.J., Gupta Pradeep K., Singh C.P., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Studies on intracavity frequency doubled Nd:GdVO₄ laser operating at 912nm with different doping concentration
77. Sharma S.K., Verma S., Singh Yeshpal, Bartwal K.S., Gupta P.K.
Oriented growth of KDP crystal along SHG type-II phase matching direction by solute feed based unidirectional growth technique
78. Sharma S.K., Singh Yeshpal, Verma Sunil, Bartwal K.S., Gupta P.K.
Growth of trans-stilbene single crystals from solution using acetone as solvent
79. Shiva S.*, Palani I.A.*, Paul C.P.
Influence of conventional annealing and laser annealing on the surface morphology of Ni-Ti structures developed by laser additive manufacturing
80. Shrivastava M.*, Singh Asha, Ahirwar B.K.*, Khan S., Jayabalan J., Chari R.
Optimization of ultrafast pump-probe experiment and detection parameters to obtain high signal to noise ratio
81. Shrivastava V.K., Shukla P., Tiwari G., Khare R.
Use of an intracavity capillary to reduce bandwidth fluctuations in a narrow bandwidth dye laser
82. Shukla V., Chari R.
Optical limiting properties of iron nanoparticles in different solvents
83. Silambarasan A.*, Rajesh P.*, Ramasamy P.*, Karnal A.K., Bhatt R., Bhaumik I., Gupta P.K.
Effect of pH on growth and optical characteristics of nonlinear optical α -lithium iodate single crystals
84. Singh A.J., Sharma S.K., Gupta Pradeep K., Singh C.P., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Diode pumped acousto-optic Q-switched Nd:GdVO₄ Laser at 912nm and its intracavity frequency doubling to generate deep blue light at 456nm
85. Singh Alok, Borage M., Tiwari S.
Development of compact and cost-effective laser diode power supplies for laser marker system
86. Singh Asha, Jayabalan J., Khan S., Chari R.
Two-Color femtosecond optical Kerr gate: dependence on pump power and wavelength
87. Singh Bhupinder, Sahu Yogesh, Verma Abrat, Ansari M.S., Navathe C.P.
Development of microcontroller based local control module for flashlamp power supply of Nd: glass laser amplifier
88. Singh C.P., Gupta Pradeep Kumar, Singh A.J., Sharma S.K., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
All fiber power amplification of flat top nanosecond pulses from all normal dispersion mode locked ytterbium doped fiber laser
89. Singh C.P., Gupta Pradeep Kumar, Singh A.J., Sharma S.K., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Experimental studies on soliton rain in all normal dispersion Yb-doped fiber laser in all-fiber standing wave cavity configuration
90. Singh C.P., Gupta Pradeep Kumar, Singh A.J., Sharma S.K., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Multi-flat top nanosecond pulses in a standing wave cavity of passively mode-locked Yb-doped fiber laser
91. Singh S., Tiwari V.B., Mishra S.R., Rawat H.S.
Zeeman slower beam modulated background collisions in a Krypton magneto-optical trap
92. Singh S.D., Yadav A.K.*, Ajimsha R.S., Misra P., Jha S.N.*, Ganguli T.
Structural and optical properties of pulsed laser deposited epitaxial ZnO layer on GaP(111) substrate
93. Singh Vivek, Tiwari V.B., Mishra S.R., Rawat H.S.
A double-well potential for laser cooled atoms using Z+I wire configuration on atom chip



94. Singh Vivek, Tiwari V.B., Mishra S.R., Rawat H.S.
Laser frequency stabilization using magnetically induced tunable Doppler-free dichroic absorption spectroscopy
95. Soharab M., Bhaumik I., Bhatt R., Saxena A., Karnal A.K., Gupta P.K.
Effect of Yb Co-doping on spectroscopic properties of Er:YVO₄ single crystals grown by optical floating one technique
96. Soni J.K., Hedao P., Ranganathan K., Bindra K.S., Oak S.M.
Diode-end-pumped high power Q-switched Nd: YVO₄ laser pumped at 880nm
97. Srivastava A., Ram S. P., Tiwari S. K., Mishra S. R., Rawat H. S.
Studies on laser cooled ⁸⁷Rb atoms trapped in a quadrupole magnetic trap
98. Subrahmanyam V.V.V., Khare R., Shrivastava V.K., Kumar P., Talwar S., Shukla P., Sarangpani K.K., Agrawal P.K., Nakhe S.V.
Design and development of a dye laser oscillator-amplifier system for Li photoionization studies
99. Sundar R., Gupta R.K., Kaul R., Nagpure D.C., Ganesh P., Ranganathan K., Bindra K.S., Oak S.M.
Oblique laser peening for tubular SS 304L to improve stress corrosion cracking resistance
100. Sundar R., Ranganathan K., Hedao P., Soni J.K., Bindra K.S., Oak S.M.
Novel pump head design for high power diode side pumped Nd:YAG laser
101. Tiwari G.N., Mishra R.K., Shrivastava V.K., Shukla P., Khare R., Nakhe S.V. Life-time study of a sealed-off copper bromide vapour laser with hydrogen
102. Tiwari S., Ashoka H., Jain L., Deshpande P.P., Bhanage V., Navathe C.P.
SCADA software and safety aspects of table top terawatt laser control system
103. Tiwari S. *, Vyas J. *, Kumar Manoj, Rana L.B., Bhagat M.S., Singh Bijendra, Kukreja L.M.
Various aspects of gas phase synthesis of TiO₂ nanoparticles films by CO₂ laser pyrolysis technique
104. Upadhyay A., Bagchi S., Tayyab M., Chakera J.A., Naik P.A., Gupta P.D.
Role of layered target hydrodynamics in heavy ion acceleration
105. Upadhyaya B.N., Misra P., Jain R.K., Singh Rajpal, Bindra K.S., Oak S.M.
Development of 400 W of single transverse mode all-fiber Yb-doped CW fiber laser at 1080 nm
106. Valecha A., Ansari M.A., Deshpande P.P., Bhanage V.P., Navathe C.P.
Versatile motion control systems for scientific experiments
107. Varshnay N.K., Benerji N.S.
Development and synchronization of two trigger generator units for excimer laser system modules
108. Verma Shweta, Rao B.T., Batham S., Anamika H., Satapathy S., Rai S.K., Kaul R., Singh Bijendra
Optical and photo-catalytic properties of ZnO and Au-ZnO nano-composites grown by pulsed laser ablation
109. Verma S., Vinoth V. *, Kar S., Debnath C., Bartwal K.S., Gupta P.K.
Influence of different optical schemes on volatile and non-volatile data storage properties of Fe, Mn doped lithium niobate crystal
110. Vyas J. *, Tiwari S., Rani E., Kumar Manoj, Ingale A., Rana L.B., Bhagat M.S., Singh Bijendra, Kukreja L.M.
Synthesis of TiO₂ nanoparticle films by CO₂ laser pyrolysis technique and effect of laser sintering on Anatase to Rutile transformation

C1.2 2nd DAE Safety & Occupational Health Professionals Meet, RRCAT, Indore, Oct., 5-7, 2015

1. Arzare D., Agrawal R.P., Sahu R., Kulkarni S.S.
The 9 yr success story of 24 X7 hydro-pneumatically pressurised fire water pumping station for accelerator & laser complex at RRCAT Indore



PUBLICATIONS (JUL 2015 - DEC 2015)

2. Bagduwal P.S., Bharadwaj N., Tiwari N., Lad M.
RF controlled protection system for Indus synchrotrons
3. Biswal R., Talwar S., Mishra G.K., Dixit S.K., Nakhe S.V.
On the safety measures for hydrogen bromide gas in copper-hydrogen bromide (Cu-HBr) laser facility at RRCAT
4. Deshpande P.P., Tiwari S., Joshi M., Jain L., Ashoka H., Bundel H.R., Navathe C.P.
Proposed safety system for infrared free electron laser (IRFEL)
5. Dixit V.K., Khamari S.K., Chatterjee A., Khakha A., Sharma T.K., Oak S.M.
Safety aspects in the fabrication of radiation hard semiconductor detector
6. Ghodke D.V., Senecha V.K., Khare R.K., Kumar Rajnish, Kumar Ranjan, Pathak M., Joshi S.C.
Safety aspects of operation of H-Ion source
7. Ghosh U.K., Porwal S., Khakha A., Jayaprakash G., Jaiswal A.K., Dixit V.K., Sharma T.K., Oak S.M.
Safety aspects of high purity gas lines in semiconductor applications
8. Gothwal P., Gupta A., Satheesan T.V., Yadav R.P., Agrawal R.K., Fatnani P.
Safety provisions in Indus-2 for undulator operation
9. Gupta A.M., Gothwal P., Merh B., Fatnani P.
Performance of Indus-2 machine safety interlock system
10. Jayaprakash G., Ganguli T., Agnihotri V., Chatterjee A., Sharma T.K., Oak S.M.
Safety aspects in the fabrication of nitride metal organic vapour phase epitaxy system
11. Kameshwar Rao A., Jalali S.M.
Exemplary scenario of safety audit at RRCAT
12. Khan Saleem, Kumar Vijay, Haridas G., Sinha A.K., Puntambekar T.A.
Ozone generation in synchrotron radiation beamlines of Indus-2 and its safety measures
13. Khare R., Shrivastava V.K., Subrahmanyam V.V.V., Tiwari G., Talwar S., Shukla P.
Safety issues and measures in a Dye laser laboratory
14. Meshram V., Tomar S.S., Rawat A.
Safety guidelines for operation and maintenance of security systems using high voltage
15. Mishra R.K., Agrawal P.K., Krishnan K.M., Kumar J., Nakhe S.V.
Safety features in high voltage pulse power supply for copper vapour laser
16. Naikaware U., Mirza Z.B.
Medical applications of lasers
17. Nayak M.K.*, Haridas G.*, Tiwari N., Bandyopadhyay T.*, Lad M., Puntambekar T.A., Tripathi R.M.*
RF and MW radiation hazards, safety and measurements at RRCAT, Indore
18. Raghavendra S., Suhane S.K., Ram Sankar P., Singh A.P., Singh Amar, Das K.K., Chauhan K.K., Kokil S.V., Rajpoot D.S., Joshi S.C.
Electropolishing of superconducting RF cavities
19. Ram Sankar P., Arzare D.K., Singh B.P., Singh A.P., Khattak B.Q.
Safety in electroplating processes
20. Rao B.S., Chakera J.A., Naik P.A., Gupta P.D.
Safety aspects of ultra-short ultrahigh intensity laser matter interaction experimental facilities
21. Sharma S.D., Sharma Sanjay, Veerabhadraiah T., Mundra G.
Safety aspect in developing technology in machining facilities lab, ACDFS
22. Singh B., Ansari M.S., Sreedhar N., Navathe C.P.
Electrical safety aspects of flash lamp pumped high power ND:glass laser chain
23. Sreeramulu K., Das S., Shinde R.S.
Safety issues in the development of magnets for the operation of INDUS accelerators
24. Thander P.K., Verma Dharendra, Patil J., Rajan A., Rawat A., Mishra P.K., Jayakumar C., Pundalik A.



Safety precautions in bus bar trunk based power distribution system for high performance computing clusters

25. Upadhyaya B.N., Bindra K.S., Oak S.M., Gupta P.D.
Safety issues in laser cutting of nuclear reactor components

C1.3 Indian Particle Accelerator Conference (InPAC-2015), Mumbai, Dec., 21-24, 2015

1. Abdurrahim, Fakhri A.A., Husain R., Jena S.K., Saini R.S., Sharma Amalendu, Kumar Pradeep, Ghodke A.D.
Beam dynamics studies during commissioning of two undulators in Indus-2
2. Acharya M., Reghu T., Mulchandani J., Baboo P., Shrivastava P.
Design, development and commissioning of a 16 kV, 6A power supply for 12 MW Klystron modulator for 10 MeV LINAC
3. Ahlawat M., Choubey P., Roy V., Pareek P., Aditya L., Shinde R.S.
Design of 476 MHz stripline ferrite circulator for RF systems of accelerator
4. Arora R.K., Prasad M., Lad M.
Measurement, analysis and optimization of higher order modes of RF cavities to achieve 200mA/2.5GeV beam in Indus-2
5. Babbar L.K.
Mechanical design, development, and installation of ultra high vacuum compatible beam position indicators for insertion devices in Indus-2
6. Badapanda M.K., Upadhyay R., Tripathi A., Tyagi R.K., Lad M.
Modular hot swappable 50 V, 700 A DC power supply with active redundancy
7. Bagre M., Maurya T., Yedle A., Moulali S., Kumar V., Yadav A., Sandha R.S., Sharma S., Rajpoot V., Ramshankar P., Gupta R.K., Puntambekar A., Joshi S.C.
Development of 1.3 GHz Nine-cell SCRF cavities at RRCAT
8. Bansod T., Ratankala K.C., Bais V., Singh A.K., Phase D.M., Shridhar R.
Development of non evaporable getter coated aluminium chamber and its vacuum performance
9. Baraik K., Kumar Abhay
Thermal design of optical system of undulator based ARPES beamline of Indus-2
10. Barothiya R., Dev S., Singh Yashpal, Thakurta A.C.
Design & development of pulse power supply for transmission line type kicker magnet
11. Bharadwaj N., Tiwari N., Lad M.
Design modifications and up gradations in Indus 2 RF safety interlock system for the safety of recently commissioned insertion devices U1 and U2
12. Bhatnagar P., Bhanage N.J., Sharma Hemkant, Yadav R.S., Sivalingam V., Joshi S., Sridhar R.
First experience of activation of NEG coated racetrack aluminium alloy vacuum chambers of undulators in Indus-2.
13. Chakraborty S., Tiwari N., Bagduwal P.S., Sharma Dheeraj, Lad M.
FPGA based real time RF cavity simulator for superconducting RF cavity
14. Chandran S., Biswas B., Bhanage V., Chouksey S., Das S., Gupta R.K., Joshi M., Parihar S.S., Sahu R.K., Shinde R.S., Valecha A., Kumar Vinit, Pant K.K.
Magnetic characterization of the undulator for infrared free-electron
15. Chaturvedi Anurag, Kane G.V., Sharma N.K., Oraon B., Joshi S.C.
Design for fabrication of 325 MHz RFQ structure
16. Choudhary R.S., Jain Arihant., Goswami S.G., Shrivastava A., Petwal V., Sandha R.S., S e e m a M . , Holikatti A.C., Babbar L.K., Puntambekar T.A., Dwivedi J., Thakurta A.C.
Engineering development of beam energy and current measurement devices for 10MeV Linac
17. Das S., Kumar Ashok, Srinivasan B., Sreeramulu K., Shinde R.S.
Development of stretched wire system for the



- measurement of magnetic field integrals of insertion device at RRCAT
18. Das S., Shinde R.S.
Preliminary magnetic design study of wavelength shifter and wiggler for Indus-2
 19. Deo R.K., Kumar G., Jain M.K., Lad M.
Design and development of wideband RF component for longitudinal multi-bunch feedback system in Indus-2
 20. Dhingra R., Kulkarni N., Kumar Vinit
Lattice design of medium energy beam transport line for Indian spallation neutron source
 21. Doohan R.S., Kush P.K., Maheshwari G.
Cold box design optimization and capacity enhancement of indigenously developed helium liquefier system to 40 liters/hour
 22. Dutta S., Goswami S.G., Rao K.V.S.R., Kumar Pankaj, Soni R.K., Pramod R., Dwivedi J., Baxy D., Wanmode Y.D., Reddy T.S., Mohania P., Shrivastava P., Sheth Y.M., Maheswari P., Mehr B.N., Fatnani P., Das S., Sreeramulu K., Shinde R.S., Pagare A., Amban A.K., Tiwari S., Thakurta A.C., Sharma S.D., Bhatnagar V.K., Sisodia B., Mundra G., Haridas G., Holikatti A.C., Pandey R.M., Puntambekar T.A., Ram Sankar P.
Development and beam tests of a new 20MeV injector microtron for Indus
 23. Dwivedi V.K., Borage M., Tiwari S., Thakurta A. C.
A 10 kV, 1 ADC power supply based on three-phase, pulse-width-modulated resonant immittance converter using diode-split high voltage transformer
 24. Garg A.D., Ojha A., Karnewar A.K., Shrivastava B.B., Holikatti A.C., Puntambekar T.A.
Measurement of transverse beam parameters at X-ray diagnostic beamlines in Indus-2 synchrotron radiation source
 25. Garg S.R., Prasad V., Sinha A.K.
Design and development of mirror system for ADXRD beamline of Indus-2
 26. Gaud V., Pareek P., Senthil Kumar S., Kulshreshtha P.K., Mishra A.K., Singh Karan, Mishra R.K., Shinde R.S.
Design and development of permanent magnet based composite magnet system for biasing of high power ferrite circulator
 27. Gaud V., Pareek P., Singh Karan, Senthil Kumar S., Sreeramulu K., Singh Kushraj, Veerbhadraiah T., Sharma S.D., Mishra R.K., Shinde R.S.
Development of prototype eddy current septum magnet for Indus-2
 28. Gauttam V.K., Kasliwal A., Renukanath P., Tiwari S.R., Thakurta A.C.
A -50 kV electron gun high voltage pulse power supply with 50 kW peak power for electron accelerators
 29. Gauttam V.K., Kasliwal A., Tiwari S.R., Thakurta A.C.
A Z-source inverter based scanning magnet power supply with unipolar fixed band hysteresis current control for 10 MeV RF LINAC
 30. Ghodke D.V., Khare R.K., Kumar Rajnish, Kumar Ranjan, Arya B.K., Pathak M., Senecha V.K., Joshi S.C.
Development of 13.56 MHz RF antenna based ignition system for H- Ion source
 31. Gilankar S., Khare P., Kush P.K., Lakshminarayanan A., Chaube R., Ghosh R., Jain A., Patel H.
Engineering design of Bi-cavity horizontal test cryostat at RRCAT for testing 650 MHz SCRF cavities
 32. Goyal P.K., Sharma Amalendu, Kumar Vinit, Ghodke A.D.
Studies on beam extraction from the 1 GeV proton accumulator ring
 33. Gupta Alok Kumar, Sharma D.K., Jain Akhilesh, Lad M.
Power combining scheme for 50 kW pulsed solid state RF power amplifier unit at 325 MHz
 34. Gupta D.K., Verma Dimple, Sahu T.K., Haridas G., Bandyopadhyay T., Tripathi R.M., Puntambekar T.A.
Dose profile measurement in Indus-2 ring tunnel using thermos luminescent dosimeters



35. Gupta Prabhat Kumar, Kumar Manoj, Kush P.K.
Cryogenics for a vertical test stand facility for testing superconducting radio frequency cavities at RRCAT
36. Gupta R.K., Ram Sankar P., Bose A., Rai S.K., Ganesh P., Kaul R., Sandha R.S., Dwivedi J., Singh B.
A corrosion study on vacuum brazed joints of LINAC
37. Hazra D., Moorti A., Rao B.S., Chakera J.A., Naik P.A., Gupta P.D.
Generation of quasi-monoenergetic electron beams through betatron resonance in self-guided laser plasma channel
38. Holikatti A.C., Jain Rahul, Karnewar A.K., Sonawane B.B., Maurya N.K., Puntambekar T.A.
Microcontroller based motion control interface unit for double slit type beam emittance monitor for H- ion source
39. Husain R., Ghodke A.D.
Indus-2 lattice optimization using multi-objective algorithms
40. Husain R., Jena S.K., Meena V.K., Kant P., Ghodke A.D.
Beta beat correction and improvement in Indus-2 storage ring performance
41. Jain Akhilesh
Investigations on high power solid state RF and microwave amplifiers for superconducting structures
42. Jain Akhilesh, Sharma D.K., Gupta A.K., Pathak K., Lad M.R.
Design of 650 MHz, 30 kW solid state RF amplifier
43. Jain Alok, Verma R.K., Rajan A., Modi M.H., Rawat A.
e-Booking of beam-time over internet for beamlines of Indus synchrotron radiation sources
44. Jain M.K., Deo R.K., Kumar Gautam, Lad M.
Design and simulation of chain type RF power combiner at 505MHz.
45. Jain M.K., Deo R.K., Kumar Gautam, Lad M.
Realization of 50-way RF cavity combiner for planar triode based pulse power source at 325MHz
46. Jain Rahul, Holikatti A.C., Ojha A., Sonawane B.B., Puntambekar T.A.
Design and development of low current measurement electronics for beam diagnostics system
47. Janardhan M., Gupta A.M., Sheth Y.M., Fatnani P.
Up gradation of control system for RF subsystems of booster synchrotron and Indus-1 storage ring
48. Jathar M.R., Meshram V., Patidar S.C.
RF ID card based access control system with counter for Indus complex
49. Kane G.V., Kokil S.V., Sharma N.K., Raghavendra S., Chauhan S.K., Chaturvedi Anurag, Joshi S.C.
Tuning of a prototype 352 MHz RFQ structure
50. Karandikar U.S., Singh Yashpal, Thakurta A.C.
Design and development of modified injection kicker power supply for booster synchrotron
51. Kasliwal A., Gauttam V., Pandit T.G., Tiwari S., Thakurta A.C.
A Marx generator based high voltage high current pulsed power supply with variable pulse width
52. Kelkar Y., Singh Yashpal, Thakurta A.C.
Development of shunt regulated high stability septum power supplies for booster upgradation
53. Kant C., Lal S., Raghuwanshi V.K., Prasad V.
Measurement of position and profile of undulator radiation in Indus-2 using scanning wire monitor
54. Karnewar A.K.
Mechanical design and development of visible diagnostic beam line at Indus-2
55. Khare P., Gilankar S., Ghosh R., Saxena P., Chaube R., Jain A., Gupta C., Sinnarkar D., Tiwari A., Singh L., Sharma D., Kushwaha M., Lakshminarayanan A., Vora H.S., Kush P.K., Roger V.*, Nicol T.*
Design of a standalone cryomodule for 650MHz SCRF cavities of ISNS : new concepts and experimental results
56. Khare P., Upadhyay B., Ghosh R., Arya R., Jain Abhishek, Gilankar S., Gupta C., Singh Laxman, Sharma D., Lakshminarayanan A., Kush P.K., Oak



- S.M., Gupta P.D.
Successful development of worlds first laser welded SCRF cavity at RRCAT technique and advantages
57. Kokil S.V., Kane G.V., Raghavendra S., Chauhan S.K., Rajpoot D.S., Oraon B., Prakash O., Joshi S.C.
Development of an optical inspection bench for the inspection of internal surfaces of 650 MHz SCRF cavities
58. Kumar G., Deo R.K., Jain M.K., Lad M.
Installation, testing & commissioning of 10 kW pulse RF amplifier system@476MHz using planar triode for IR FEL
59. Kumar Pankaj, Kumar Harish, Soni R.K., Dwivedi J., Thakurta A.C., Wanmode Y.D., Pareek P., Senthil Kumar S., Shinde R.S.
Developmental efforts of RF collinear load for 10 MeV, 6 kW travelling wave linac
60. Kumar Rajnish, Senecha V.K., Ghodke D.V.
Optimization study of various magnetic fields of plasma chamber and extraction geometry for H- ion source using 3D design simulations
61. Kumar Ramesh. Prasad M., Tiwari A.K., Gupta A.K., Bhardwaj N., Arora R., Jain A.K., Badapanda M.K., Pandey R.M., Sathe V.G., Lad M., Gupta P.D.
High power test of indigenously developed RF cavity and RF power coupler for Indus-2
62. Kumar Vijay, Khan S., Sahu T.K., Singh Balwant, Haridas G., Puntambekar T.A.
Measurement of ozone concentration and estimation of delay time at imaging beamline (BL-4) of Indus-2 synchrotron radiation source
63. Lal Shankar
Design, construction and experimental studies with an S-band photoinjector
64. Mahawar A., Mohania P., Shrivastava P., Yadav A., Puntambekar A.
Room temperature RF characterization of Nb make super conducting radio frequency cavities at RRCAT
65. Malik R., Sreeramulu K., Ruwali K., William S. Choudhary R.S., Goswami S.G., Mishra A.K., Kumar Ashok, Srinivasan B., Das S., Mishra R.K., Shinde R.S.
Development of magnets for agricultural radiation processing facility at RRCAT
66. Malviya D.*, Borage M., Tiwari S., Bharadwaj A.K.*
Simulation studies on current fed Cockroft-Walton multiplier
67. Mohania P., Mahawar A., Singh K.A.P., Namdeo R., Baxy D., Shrivastava P.
Design and development of low level S-Band RF control system for IRFEL injector LINAC
68. Mulchandani J., Baboo P., Shrivastava P.
Indigenous development of 50kV, 1A high PRR solid state modulators for triode electron gun for RF linac
69. Mulchandani J., Baboo P., Singh H.G., Shrivastava P.
Performance evaluation of 352.21 MHz, 1MW Klystrons and circulators at high power pulsed test stand at RRCAT
70. Mundra G., Sharma S.D., Kumar Ramesh, Bhatnagar V., Sathe V.G., Gupta R.K., Veerbhadraiah T., Sharma Sanjay, Yedle K., Sisodia B., Ram Sankar P., Tiwari Ashish, Prasad M., Lad M.
Manufacturing of indigenously RF cavity for Indus-2
71. Nanda D., Tiwari B., Pandey R.M.
Recent developments in coolant systems for Indus accelerator complex at RRCAT, Indore
72. Nigam N., Kokil S.V., Sharma N.K., Kane G.V., Chauhan S.K., Raghavendra S., Sahu A., Prakash O., Kumar Pramod., Oraon B., Chaturvedi Anurag, Joshi S.C.
Tuning of nine cell 1.3 GHz RF cavity using indigenously developed semi-automatic cavity tuning machine
73. Ojha A., Malviya R.*, Yadav S., Holikatti A.C., Puntambekar T.A.
Development of digital down conversion based digital beam position monitor for Indus-1



74. Padiyar A.S., Parate J.K., Ranadive M., Chouksey S., Mundra G.
Mechanical design and development of beam transport system for infra-red free electron laser (IR-FEL)
75. Pagare A., Amban A.K., Mani S.
Power supplies for new microtron at RRCAT, Indore
76. Pai S., Biswas B., Padiyar A., Chouksey S.
Optical modeling of beamline for transport of Infrared beam to user area for IR FEL at RRCAT
77. Pal M.K., Gaur R., Kumar Vinit
Multipacting and higher order mode analysis of 325 MHz single spoke resonators
78. Pandey R.M., Baghel S.L., Parate J.K., Ahlawat Sandeep, Rawlani B.K., Chouksey S.
Operational experience of air washer based ventilation system for power conditioning system in Indus-2
79. Parchani G., Kanungo P.K., Sharma Ashok, Lambhate Yogesh, Chouhan S.K.
Design & construction of SCRF cavity test laboratory building at RRCAT
80. Parchani G., Kanungo P.K., Kolhe R., Lambhate Y., Rawalani B.K., Arzare D., Parate J.K., Chouksey S., Pundalik A.D., Kulkarni S.S.
Planning design & construction of infra-red free electron laser (IR-FEL) building complex
81. Pareek P., Gaud V., Shinde R.S.
Development of upgraded low coupling impedance kicker magnets for 2.5 GeV storage ring
82. Pareek P., Singh Karan, Shinde R.S.
Development of wide band FCT for TW linac of agriculture radiation processing facility at RRCAT
83. Pareek P., Singh Karan, Yadav R., Shinde R.S.
Development of pulsed type hysteresis loop tracer for the characterization of high energy permanent magnets
84. Pathak M., Ghodke D.V., Senecha V.K.
Modeling and simulation of inductively coupled plasma (ICP) generation at 2 MHz frequency for RF based H-Ion source
85. Petwal V.C., Wanmode Y., Sandha R.S., Mulchandani J.K., Goswami S.G., Raghu T., Seema M., Gothwal P., Shrivastava B.S.K., Choudhary R.S., Jain Arihant, Verma V.P., Kumar Ajay, Kumar Pankaj, Reddy S., Acharya M., Bhisikar A., Gautam V., Holikatti A., Tyagi Y., Sinndal B.K., Gupta D. Haridas G., Kulkarni N., Kumar Vineet, Kasliwal A., Sheth Y., Tyagi Y., Sridhar R., Pandey R.M., Puntambekar T.A., Dwivedi J., Shrivastava P., Thakurta A.C.
Beam trial and operation optimization of 10 MeV industrial electron linac
86. Prasad M., Kumar Ramesh, Arora R.K., Lad M.
Design, fabrication and RF characterization of broadband prototype kicker RF cavity for longitudinal multi bunch feedback system for Indus-2
87. Puntambekar A., Dwivedi J., Mundra G., Shrivastava P., Joshi S.C., Gupta P.D.
Progress on SCRF cavity manufacturing activities at RRCAT
88. Raghavendra S., Suhane S.K., Chauhan S.K., Kokil S., Ramsankar P., Das K.K., Singh Amar, Rajpoot D.S., Hussain M.A., Joshi S.C.
Processing and testing of single-cell 650 MHz superconducting RF cavity
89. Raghuvanshi V.K., Tyagi Y., Yadav S., Puntambekar T.A., Jain Vikas, Prasad V.
Design, fabrication, installation and commissioning of water-cooled beam viewer for undulator front-ends of Indus-2
90. Ram Sankar P., Singh A.P., Singh B.P., Khattak B.Q., Suhane S.K., Raghavendra S., Joshi S.C.
Copper deposition on prototype drift tube LINAC tank
91. Rao N.J., Kumar Pradeep, Singhania C.P., Lad M.
Development of PLC based control system for frequency tuning loop of 31.6 MHz RF cavity
92. Ratnakala K.C., Tiwari S.K., Bhange N.J., Yadav D.P., Babbar L.K., Netram, Sridhar R.
UHV testing of vacuum components and diagnostic devices, related to undulators in Indus-2
93. Ruwali K., Amalraj S.W., Sreeramulu K., Kumar Ashok., Singh Kushraj., Kulshreshtha P.K., Shinde R.S.



- A large bore quadrupole magnet for calibration of rotating coils
94. Ruwali K., Thakur V., Das S., Biswas B., Singh Kushraj, Amalraj S.W., Sreeramulu K., Mishra A.K., Shinde R.S.
Development of magnets for infra-red- free electron laser project at RRCAT
95. Sahani P.K., Haridas G., Patel H.K., Kush P.K., Joshi S.C., Puntambekar T.A.
Radiation shielding evaluation of vertical test stand facility at RRCAT
96. Sandha R.S., Goswami S.G., Choudhary R.S., Dwivedi J., Sharma Sanjay, Veerbhadraiah T., Sharma S.D., Yedle K., Bhatnagar V., Ram Sankar P., Ganesh P., Kaul R., Kulkarni N., Kumar Vinit., Wanmode Y., Shrivastava P., Sridhar R., Mundra G., Thakurta A.C.
Engineering design and development of 10MeV, S-band accelerating structure
97. Sathe V.G., Modi M.H., Yadav A.S., Prasad V., Sridhar R., Lodha G.S.
Development of a differential pumping system for soft x-ray reflectivity beam line of Indus-2
98. Senecha V.K., Kumar Rajnish, Ghodke D.V., Khare R.K., Jain S.K., Kumar Ranjan, Arya B.K., Joshi S.C.
Pulsed H- Ion beam Extraction from filament based multicusp ion source
99. Sharma D.K., Jain Akhilesh., Gupta Alok, Pathak K., Lad M.
Development of directional RF power sensor
100. Shinde R.S., Aditya L., Pareek P., Senthil Kumar S., Gaud V., Ahlawat M., Gupta P.D.
Indigenous development of ferrite circulator for RF system of accelerator at RRCAT
101. Shrivastava B.B., Tiwari A.N., Chouhan M., Puntambekar T.A.
Implementation of electron beam position measurement algorithm and embedded web server using mcs-51 micro-controller for booster synchrotron
102. Shrivastava P., Mulchandani J., Wanmode Y.D., Acharya M., Raghu T., Mohania P., Baboo P., Singh H.G.
Development, qualification and commissioning of high power microwave systems and components for electron linac program at RRCAT
103. Shrivastava P., Mohania P., Singh K.A.P., Mahawar A., Rajput V., Namdeo R., Baxy D.
Performance of the radio frequency system for qualification of 650 MHz/1.3 GHz superconducting RF cavities in vertical test stand at RRCAT
104. Singh Alok, Dwivedi V.K., Borage M., Tiwari S., Thakurta A.C.
Power supplies for IRFEL beam transport line magnets
105. Singh K.A.P., Mohania P., Rajput V., Baxy D., Shrivastava P.
Novel automatic phase lock determination for superconducting cavity tests at vertical test stand at RRCAT
106. Singh K.K., Jain V.K., Kokil S.V., Chauhan S.K., Raghavendra S., Mahawar A., Mohania P., Singh A.P., Shrivastava P., Kush P.K., Joshi S.C.
Tuner testing with 1.3 GHz single-cell SCRF cavity at cryogenic temperature
107. Singh Urmila, Sharma Amalendu, Kumar Vinit, Ghodke A.D.
Beam loading studies for 1 GeV proton accumulator ring
108. Sreeramulu K., Malik R., Thakur V., Das S., Amalraj S.W., Srinivasan B., Mishra A.K., Shinde R.S.
Development of solenoids and combined function steering magnets for LEPT of proton linac
109. Suhane S.K., Chauhan S.K., Bose A., Kokil S.V., Rajput D.S., Oraon B., Hussain M.A., Sahu A., Raghavendra S., Joshi S.C.
Development of high pressure rinsing set up for 650 MHz, 5-Cell superconducting RF cavity cleaning
110. Thakur V., Das S., Kumar Sudhir, Sreeramulu K., Kumar Ashok, Srinivasan B., Singh Kushraj, Mishra A.K., Shinde R.S.
Harmonic sextupole magnets for Indus-2



111. Thakur V., Jain Vikas, Das S., Shinde R.S., Joshi S.C.
Design and analysis of magnetic shield for 650 MHz SCRF cavity
Performance review of thermionic electron gun developed for RF linear accelerators at RRCAT
112. Thondapu S., Wanmode Y., Bhisikar A., Shrivastava P.
Low power RF measurements of travelling wave type linear accelerator
122. Wanmode Y., Thondapu S., Mulchandani J., Mohania P., Shrivastava P.
S-band 45 MW peak power test facility at RRCAT
113. Tiwari Ashish, Kumar Ramesh, Prasad M., Lad M.
Design of compact coaxial to WR 1800 waveguide adapters
123. Yadav D.P., Bais V., Dhimole V.K., Suthar N., Rawal B.R., Chogaonkar S., Sridhar R.
Design and finite element simulation of vacuum systems for insertion devices in Indus-2 storage ring
114. Tiwari N., Bagduwal P.S., Sharma Dheeraj., Chakraborty S., Lad M.
Development and deployment of CW and pulsed digital low level RF systems for accelerators at RRCAT
124. Yadav D.P., Kumar Abhay, Ganesh P., Kaul T., Ram Sankar P., Yedle K., Singh M.K., Gupta R.K., Karnewar A.K., Bhatnagar V.K., Sridhar R.
Vacuum brazing of OFE copper-316L stainless steel transition joints without electroplating stainless steel part for application in particle accelerators
115. Tripathi Akhilesh, Badapanda M.K., Upadhyay R., Lad M.
Design and development of 50 V, 300 A pulse power supply for solid state RF amplifiers
C1.4 AIP Conference Proceedings, vol. 1665 (2015)
116. Tyagi R., Tripathi Akhilesh, Upadhyay R., Badapanda M.K., Lad M.
Operational experience with -20 kV, 5 A DC power supply in Indus-2 RF system
1. Nayak M., Pradhan P.C., Lodha G.S.
X-ray multilayer optics for Indus synchrotrons application
117. Tyagi Y., Holikatti A.C., Babbar L.K., Yadav S., Karnewar A.K., Puntambekar T.A.
Calibration of beam position indicators for insertion devices of Indus-2
2. Panda M.R. *, Bhowmik R.N. *, Sinha A.K.
Existence of Fe⁴⁺ Ions in Co_{2.25}Fe_{0.75}O₄ spinel ferrite confirmed from SXRD and XANES spectroscopy
118. Upadhyay J., Garg A.D., Jain Monika, Ojha A., Tyagi Y., Sharma M.L., Puntambekar T.A., Navathe C.P., Vora H.S.
Measurement of longitudinal electron beam parameters using indigenously developed streak camera system at Indus-1 synchrotron radiation source
3. Pathak S.K., Singh Gurvinderjit, Gupta S.M., Tiwari V.S., Gupta P.K.
Effect of SiO₂ on microstructure and transparency of Nd:Y₂O₃ ceramics
119. Upadhyay R., Tripathi A., Badapanda M.K., Lad M.
FPGA based control system for -100 kV, 25 A crowbarless DC power supply
4. Pradhan P.C., Nayak M., Mondal P., Lodha G.S.
Interface study and performance of large layer pair ultrashort period W/B₄C x-ray multilayer
120. Valecha A., Bhanage V.P., Deshpande P.P., Navathe C.P.
Infrared free electron laser magnet power supply control system
5. Ramesh T. *, Senthil Kumar S., Shinde R.S., Murthy S.R. *
Effect of aluminum substitution on structural and electromagnetic properties of nanocrystalline MgCuMn ferrites
121. Wanmode Y., Mulchandani J., Thondapu S., Bhisikar A., Singh H.G., Shrivastava P.
6. Roy T., Chakrabarti Aparna
Study of effect of copper-substitution at Ga Site in some Ga-Based Heusler alloys from first-principles calculations



- Singh Amol, Modi M.H., Rajput P., Jha S.N.*, Lodha G.S.
Study of NbC thin films for soft x-ray multilayer applications
- Singh Harishchandra, Sinha A.K., Ghosh Haranath, Singh M.N., Upadhyay A.
Structural study in ceramic multiferroic Co_3TeO_6 and analysis of possible Co-Co networks
- Sheetal S.*, Pandey A.*, Sinha A.K., Gupta R.*
Formation of titanium carbonitride film by laser treatment: structural and transport properties
- Yadav P.K., Kumar M., Rai S.K., Modi M.H., Chakera J.A., Nayak M., Naik P.A., Lodha G.S.
Removal of carbon contaminations by RF plasma generated reactive species and subsequent effects on optical surface
- Tiwari S.K., Ratnakala K.C., Bhanghe N.J., Netram, Sridhar R., Shukla S.K.
UHV testing of Spare straight section chambers of Indus-2 (poster presentation)
- Upadhyay J., Kumar Sudhir, Sreedhar N., Navathe C.P.
Development of S-1 optical streak camera for characterization of spark gap switches at APPD, BARC
- Yadav D.P., Sindal B.K., Bansod T., Kumar K.V.A.N.P.S., Bhanghe N.J., Ratnakala K.C., Bhatnagar P., Sridhar R.
Development and installation of undulator vacuum system in Indus-2 storage ring
- Yadav D.P., Sridhar R.
Simulation of pressure profile in vacuum system using thermal module of a commercial finite element program (poster presentation)

C1.5 National Symposium on Vacuum Technology and its Applications to Electron Beams (IVSNS-2015), Mumbai, Nov., 18-20, 2015

- Bansod T., Ratnakala K.C., Bais V., Singh A.K., Phase D.M.*, Sridhar R.
Development of non evaporable getter coated aluminium chamber and its vacuum performance (poster presentation)
- Kumar K.V.A.N.P.S., Sindal B.K., Malviya K.K., Bhanghe N.J., Joshi S.P., Sridhar R.
Study and quick repair of leaks using vacuum instrumentation in Indus-2 vacuum system (poster presentation)
National Symposium on Vacuum Technology and its applications to Electron Beams (IVSNS-2015),
- Ratnakala K.C., Tiwari S.K., Bhanghe N.J., Yadav D.P., Babbar L.K., Netram, Sridhar R.
UHV testing of vacuum components and diagnostic devices, related to undulators in Indus-2 (poster presentation)
- Sindal B.K., Kumar K.V.A.N.P.S., Sridhar R.
Achieving extreme high vacuum
- Arora V., Chakera J.A., Naik P.A., Gupta P.D.
Emerging trends in x-ray spectroscopic studies of plasma produced by intense laser beams
AIP Conference Proceedings, vol. 1670 (2015)
- Barnwal S., Prasad Y.B.S.R., Nigam S., Aneesh K., Joshi A.S., Naik P.A., Navathe C.P., Gupta P.D.
Effect of rate of rise of discharge current on the gain-coefficient of 46.9 nm soft x-ray laser from fast capillary discharge
30th National Symposium on Plasma Science and Technology (PLASMA-2015), Kolkata, Dec., 1-4, 2015
- Barnwal S., Nigam S., Aneesh K., Prasad Y.B.S.R., Sharma M.L., Joshi A.S., Naik P.A., Navathe C.P., Gupta P.D.
Spectroscopic study of nitrogen Z-pinch plasma towards X-ray lasing from fast capillary discharge
30th National Symposium on Plasma Science and Technology (PLASMA-2015), Kolkata, Dec., 1-4, 2015
- Bhattacharyya R.*, Mukherjee C., Kumar S.*, Dixit P.N.*

C2. Others Seminars/Conference Presentation



- Cold plasma processing for some novel material development
AIP Conference Proceedings, vol. 1670 (2015)
5. Geetanjali V., Porwal S., Kumar R., Dixit V.K., Sharma T.K., Oak S.M.
Development and application of InAsP/InP quantum well infrared detector
60th DAE Solid State Physics Symposium (DAE-SSPS-2015), Amity, Dec., 2015
6. Dasgupta R., Ahlawat S., Verma R.S., Chowdhury Aniket, Kumar Nitin, Gupta P.K.
Applications of optical tweezers in biomedical diagnosis
21st Conference of International Society for Laser Surgery and Medicine (ISLSM 2015), Indore, Aug. 19-22, 2015
7. Deshmukh P., Satapathya S., Singh M.K., Gupta P.K.
Effect of surfactant concentration and solvent used for washing in the preparation of Yb:Y₂O₃ transparent ceramics
International Conference on Nanomaterials and Nanotechnology (NANO-2015), Namakkal, Dec. 7-10, 2015
8. Dube A., Parihar A., Gupta P.K.
Investigation on the efficacy of chlorin p6 and its histamine conjugate for photodynamic treatment of oral tumors in hester model
21st Conference of International Society for Laser Surgery and Medicine (ISLSM 2015), Indore, Aug. 19-22, 2015
9. Jain Akhilesh, Sharma D.K., Gupta A.K., Pathak K., Lad M.
Design of high average power solid-state transmitter
IEEE Applied Electromagnetics Conference (AEMC 2015), Guwahati, Dec., 18-21, 2015
10. Jain Alok, Gupta Sarthak, Vyas M., Pathy D., Khare G., Rajan A., Rawat A.
Open source EJBCA public key infrastructure for e-Governance enabled software systems in RRCAT
Golden Jubilee Annual Convention of Computer Society of India (CSI-2015), New Delhi, Dec., 2-5, 2015
11. Jain Beena, Deepa K.M.R.*
Study on stability of curcumin in nano-formulations using steady state and time resolved optical spectroscopy
International Conference on Light Quanta: Modern Perspectives & Applications, Allahabad, Dec., 14-16, 2015
12. Jaiswal Y.*, Borage M., Tiwari S.
Analysis and design of a fourth-order resonant immittance converter topology
National Power Electronics Conference (NPEC2015), Mumbai Dec. 21-23, 2015
13. Joshi U.*, Dwivedi V.K., Singh Alok, Borage M., Tiwari S., Sehrawat S.*
Reliability estimation of the power converter module of a 20 kW electromagnet power supply
National Power Electronics Conference (NPEC2015), Mumbai Dec. 21-23, 2015
14. Kumar Abhay, Ganesh P., Kaul R., Ram Sankar P., Sindal B. K., Yadav D. P., Bhatnagar V. K., Yedle K., Gupta Ram Kishor, Sharma Sanjay, Sharma S. D., Gupta Rakesh Kumar, Sridhar R., Mundra G., Joshi S. C. and Kukreja L. M.
Development of vacuum brazed niobium-316L stainless steel transition joints for superconducting cavities,
National Welding Seminar, Navi Mumbai, Dec 9-11, 2015
15. Kumar J., Prakash O., Mahakud R., Agrawal S.K., Mokhariwale A., Dixit S.K., Nakhe S.V. Studies on the stability of regenerated fiber bragg gratings at 1100 °C
IEEE Workshop on Recent Advances in Photonics (WRAP-2015), Bangalore, Dec., 16-17, 2015
16. Majumder S.K., Krishna H.*, Ingole P.*, Chaturvedi P.*, Dharkar D.*, Gupta P.K.
Optical spectroscopy for oral cancer diagnosis
21st Conference of International Society for Laser Surgery and Medicine (ISLSM 2015), Indore, Aug. 19-22, 2015
17. Nanda D., Tiwari B., Pandey R.M.
Performance restoration technique developed for



- fouled heat exchanger
Symposium on Water Chemistry and Corrosion in Nuclear Power Plants in Asia - 2015, Kalpakkam, Sept. 2-4, 2015
18. Nayak M.K., Sahu T.K., Haridas G., Bandyopadhyay T., Tripathi R.M.
Bremsstrahlung source term for thin, optimum and thick target for 450 MeV electrons
National Symposium on Radiation Physics-20, Mangalore, Oct., 28-30, 2015
19. Rajan A., Joshi B.K.* , Rawat A.
L3C model of high performance computing cluster for scientific applications
Golden Jubilee Annual Convention of Computer Society of India (CSI -2015), New Delhi, Dec., 2-5, 2015
20. Rastogi P.* , Borage M., Dwivedi V.K., Singh Alok, Tiwari S., Annapoorani I.*
Estimation of size of filter inductor and capacitor in 6-pulse and 12-pulse diode bridge rectifier
National Power Electronics Conference (NPEC2015), Mumbai Dec. 21-23, 2015
21. Roy S.B., Myneni G.R.*
Qualification of niobium materials for superconducting radio frequency cavity applications: view of a condensed matter physicist
AIP Conference Proceedings vol. 1687, (2015)
22. Sahani P.K., Das A.K., Haridas G., Sinha A.K., Rajasekhar B.N., Puntambekar T.A., Sahoo N.K.
Design and optimization of gas bremsstrahlung stop for insertion device beamline on Indus-2
National Symposium on Radiation Physics-20, Mangalore, Oct 28-30, 2015
23. Sahu K., Sharma M., Dube D., Gupta P.K.
Antimicrobial photodynamic therapy for wound healing
21st Conference of International Society for Laser Surgery and Medicine (ISLSM 2015), Indore, Aug. 19-22, 2015
24. Tayyab M., Bagchi S., Khan R.A., Chakera J.A., Naik P.A., Gupta P.D.
Initial results on ion acceleration using 150 TW, Ti:sapphire Laser at RRCAT
30th National Symposium on Plasma Science & Technology (PLASMA 2015), Kolkata, Dec., 1-4, 2015
25. Timergali N.K.* , Gonin I.V.* , Grimm C.* , Lunin A.* , Nicol T.H.* , Yakovlev V.P.* , Kumar Pankaj
Mechanical optimization of high beta 650 MHz cavity for pulse and CW operation of PIP-II project
SRF 2015, Whistler, BC, Canada, Sept. 13-18, 2015
26. Verma V.P., Petwal V.C., Gothwal P., Seema M., Malviya K.K., Dwivedi J.
Effect of electron beam irradiation on microbial decontamination and phytochemical contents of spices (best paper)
2nd International Conference on Agriculture, Horticulture & Plant Sciences, Shimla, Dec., 26-27, 2015
27. Verma Y., Sahu K., Sharma P., Sharma M., Gupta P.K.
Non-invasive monitoring of wounds using optical coherence tomography
21st Conference of International Society for Laser Surgery and Medicine (ISLSM 2015), Indore, Aug. 19-22, 2015

D. Patents

1. Sanjiv Kumar Tiwari, Satya Ram Mishra and Surjya Prakash Ram, "An Apparatus for Generation of Collimated Hollow Laser Beam", Patent No.: 269505, dated 26. 10. 2015.