

A. Journal Articles

1. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Rajan C., Raja S. et al.
Prospects for observing and localizing gravitational-wave transients with Advanced LIGO, Advanced Virgo and KAGRA
Living Reviews in Relativity **21**, 3(1-57) (2018)
2. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Rajan C., Raja S. et al.
First search for nontensorial gravitational waves from known pulsars
Physical Review Letters **120**, 031104 (2018)
3. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Rajan C., Raja S. et al.
Effects of data quality vetoes on a search for compact binary coalescences in Advanced LIGO's first observing run
Classical and Quantum Gravity **35**, 065010(1-26) (2018)
4. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Rajan C., Raja S. et al.
All-sky search for long-duration gravitational wave transients in the first Advanced LIGO observing run
Classical and Quantum Gravity **35**, 065009 (2018)
5. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Rajan C., Raja S. et al.
GW170817 : implications for the stochastic gravitational-wave background from compact binary coalescences
Physical Review Letters **120**, 091101 (2018)
6. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Rajan C., Raja S. et al.
Full band all-sky search for periodic gravitational waves in the O1 LIGO data
Physical Review D **97**, 102003 (2018)
7. Aggarwal R., Ingale A.A., Dixit V.K.
Raman spectroscopy and atomic force microscopy study of interfacial polytypism in GaP/Ge(111) heterostructures
Applied Surface Science **427 pt. B**, 754-762 (2018)
8. Aggarwal R., Sankar Ram P, Sahu A.*, Ingale A.A., Sinha A.K., Mukherjee C.
Template based room temperature growth of high density CdS nanowires from aqueous electrolyte using high frequency alternating current
Journal of Materials Science: Materials in Electronics **29**, 427-435 (2018)
9. Ahlawat A., Kushwaha S., Khan A.A., Satapathy S., Choudhary R.J.*, Karnal A.K.
Influence of particle size on spin switching properties and magnetoelectric coupling in SmFeO₃
Journal of Materials Science: Materials in Electronics **29**, 927-934 (2018)
10. Banerjee C., Singh M.P.
Electron-positron pair creation by counter-propagating laser pulses: role of carrier envelope phase
European Physical Journal D **72**, 4 (2018)
11. Bansal H.*, Tiwari M.K., Mittal R.*
M sub-shell X-ray fluorescence cross-section measurements for six elements in the range Z=78-92 at tuned synchrotron photon energies 5, 7 and 9 keV
Journal of Quantitative Spectroscopy & Radiative Transfer **204**, 232-241 (2018)
12. Chakraborty, A., Mishra, S.R.
A floquet formalism for the interaction of magnetically trapped atoms with RF fields
Journal of Physics B: Atomic, Molecular and Optical Physics **51**, 025002(1-11) (2018)
13. Chakraborty, A., Mishra, S.R.
Resonance enhancement of two photon absorption by magnetically trapped atoms in strong RF-fields
Physics Letters A **382**, 157-161 (2018)
14. Chakravarty, U.
Anomalous resonances and relativistic transparency for ultra-high intensity laser plasmas
International Journal of Interdisciplinary Research and Innovations, **6** 431-437 (2018)
15. Chakravarty U., Chaturvedi D.*
Hydrodynamic time scale of resonance in intense

- laser irradiated nano-plasma of different geometries
International Journal of Scientific Research in Physics and Applied Sciences 6, 1-8 (2018)
16. Chandra L.S.S., Chattopadhyaya M.K.
Magnetic properties in the vortex state of $\text{Pr}_{1-x}\text{Nd}_x\text{Pt}_4\text{Ge}_{12}$ and $\text{PrPt}_{3.88}\text{Fe}_{0.12}\text{Ge}_{12}$ superconductors
Physica C: Superconductivity and its Applications 546, 50-54 (2018)
17. Chatterjee A., Khamari S.K., Porwal S., Kher S., Sharma T.K.
Effect of ^{60}Co γ -irradiation on the nature of electronic transport in heavily doped n-type GaN based Schottky photodetectors
Journal of Applied Physics 123, 161585(1-8) (2018)
18. Christopher B.*, Rao A.*, Nagaraja B.S.*, Prasad K.S.*, Okram G.S.*, Sanjeev G.*, Petwal V.C., Verma V.P., Dwivedi J.
Correlation between structural and transport properties of electron beam irradiated PrMnO_3 compounds
Solid State Communications 270, 30-37 (2018)
19. Das A.K., Banerjee, A
Assessment of local density approximation based exchange–correlation functional for a two-dimensional spin polarized dipolar Fermi gas
European Physical Journal D 72, 111(2018)
20. Dasgupta R., Miettinen Markus S.*, Fricke Nico*, Lipowsky Reinhard*, Dimova Rumiana*
The glycolipid GM1 reshapes asymmetric biomembranes and giant vesicles by curvature generation
Proceedings of the National Academy of Sciences 115, 201722320(2018)
21. Dhara S.*, Khooha A., Singh A.K., Tiwari M.K., Misra N.L.*
Total reflection X-ray fluorescence determination of interfering elements rubidium and uranium by profile fitting
Spectrochimica Acta Part B: Atomic Spectroscopy 144, 87-91 (2018)
22. Florio F.*, Sinha G., Sundararaman R.*
Designing high-accuracy permanent magnets for low-power magnetic resonance imaging
IEEE Transactions on Magnetics 54, 5300209(1-9) (2018)
23. Gambhir M.*, Gupta S.*, John P.*, Mahakud R., Kumar J., Prakash O.
Surface modified long period fiber grating sensor for rapid detection of aspergillus niger fungal spores
Journal Fiber and Integrated Optics 37, 79-91 (2018)
24. Garg V.*, Sengar B.S.*, Awasthi V.*, Kumar A.*, Singh R.*, Kumar S., Mukherjee C.*, Atuchin V.V.*, Mukherjee S.*
Investigation of dual-ion beam sputter-instigated plasmon generation in TCOs: a case study of GZO
ACS Applied Materials and Interfaces 10, 5464-5474 (2018)
25. Gupta R.K., Singh A., Singh A., Sankar Ram P., Sharma S.K., Mukhopadhyay P.K., Ganesh P., Kaul R., Bindra K.S., Singh B.
Maskless copper electroplating on stainless steel using DPSS green laser
Surface Engineering 34, 446-453 (2018)
26. Gupta S.*, Yadav A.*, Bhartiya S., Singh M.K., Miotello A.*, Sarkar A.*, Patel N.*
Co oxide nanostructures for electrocatalytic water-oxidation: effects of dimensionality and related properties
Nanoscale 10, 8806-8819 (2018)
27. Gupta V.K., Ingale A.A., Jain V, Aggarwal R., Pal S.
Predicting surface modification of InAs nanowires on laser irradiation using transient thermal simulation and time evolution of Raman spectra
Journal of Alloys and Compounds 725, 1331-1338 (2018)
28. Gaur R., Kumar V.
Beam dynamics and electromagnetic studies of a 3 MeV, 325 MHz radio frequency quadrupole accelerator
European Physical Journal Nuclear Sciences & Technologies 4, 9 (2018)

29. Gurrām S., Kuruvilla A., Kumar K. Kiran*, Chakravarty Usha, Singh R., Hussain Md. S.*
Development of Thulium doped fiber laser emitting 34 W of CW power at 1940 nm
Journal of Applied Physical Science International **10**, 30-36 (2018)
30. Husain R., Ghodke A.D.
Constrained multi-objective optimization of storage ring lattices
Nuclear Instruments and Methods in Physics Research Section A **883**, 151-158 (2018)
31. Hussain Z.* , Reddy R.V.* , Gupta M.* , Dhamgaye V., Khantwal N., Gupta A.*
Study of exchange bias effect in a patterned Fe/Pt multilayer with the thermal annealing
Vacuum **151**, 61-65 (2018)
32. Jain B., Reeja K.V.* , Mondal P., Sinha A.K.
Luminescent mesoporous silica nanoparticles for biomedical applications: synthesis and characterization
Journal of Luminescence **200**, 200-205 (2018)
33. Karuppasamy P.* , Pandian M.S.* , Ramasamy P.* , Verma S.
Crystal growth, structural, optical, thermal, mechanical, laser damage threshold and electrical properties of triphenylphosphine oxide 4-nitrophenol (TP4N) single crystals for nonlinear
Optical Materials, **79** 152-171 (2018)
34. Karydas A.G.* , Czyzycki M.* , Leani J.J.* , Migliori A.* , Osan J.* , Bogovac M.* , Wrobel P.* , Vakula N.* , Padilla-Alvarez R.* , Menk R.H.* , Gol M.G.* , Antonelli M.* , Tiwari M.K.* , Caliri C.* , Vogel-Mikus K.* , Darby I.* , Kaiser R.B.*
An IAEA multi-technique X-ray spectrometry endstation at Elettra Sincrotrone Trieste: benchmarking results and interdisciplinary applications
Journal of Synchrotron Radiation **25**, 189-203 (2018)
35. Kumar C.* , Das M.* , Paul C.P., Bindra K.S.
Comparison of bead shape, microstructure and mechanical properties of fiber laser beam welding of 2 mm thick plates of Ti-6Al-4V alloy
Optics and Laser Technology **105**, 306–321 (2018)
36. Kumar M., Babbar L.K., Deo R.K., Puntambekar T.A., Senecha V.K.
Modified coaxial wire method for measurement of transfer impedance of beam position monitors
Physical Review Accelerators and Beams **21**, 052801(1-11) (2018)
37. Kumar M., Babbar L.K., Holikatti A.C., Yadav S., Tyagi Y., Puntambekar T.A., Senecha V.K.
Improved design and in-situ measurements of new beam position monitors for Indus-2
Journal of Instrumentation **13**, P01003 (2018)
38. Lal S., Pant K.K.
An algorithm for the design and tuning of RF accelerating structures with variable cell lengths
Nuclear Instruments & Methods in Physics Research: Section A **889**, 57-62 (2018)
39. Laxmeshwar L.S.* , Jadhav M.S.* , Akki J.F.* , Raikar P.* , Kumar J., Prakash O., Mahakud R., Raikar U.S.*
Quantification of chloride and iron in sugar factory effluent using long period fiber grating chemical sensor
Sensors and Actuators B: Chemical **258**, 850-856 (2018)
40. Malviya D.* , Borage M.B., Tiwari S.
Analysis and design of symmetrical capacitor diode voltage multiplier driven by LCL-T resonant converter
Journal of the Institution of Engineers (India): Series B **99**, 7-16 (2018)
41. Mishra V.* , Sati A.* , Warshi M.K.* , Phatangare A.B.* , Dhole S.* , Bhoraskar V. N.* , Ghosh H., Sagdeo A., Mishra V.* , Kumar R.*
Effect of electron irradiation on the optical properties of SrTiO₃ : an experimental and theoretical investigations
Materials Research Express **5**, 036210 (2018)
42. Munirathnappa A.K.* , Ananda K.* , Sinha A.K., Sundaram N.G.*

- Effect of solvent on the red luminescence of novel lanthanide $\text{NaEu}(\text{WO}_4)_2$ nanophosphor for theranostic applications
Crystal Growth & Design **18**, 253-263 (2018)
43. Munirathnappa, A.K.*, Petwal, V.C., Dwivedi, J., Sundaram, N.G.*
Enhanced red luminescence and improved crystallinity in $\text{NaEu}(\text{WO}_4)_2$ phosphors : an electron beam irradiation study
New Journal of Chemistry, 2726-2732 (2018)
44. Panda S.*, Doohan R.S., Thakur D.G.*
Analytical study of cryogenic plate fin heat exchanger for helium liquefier
International Journal of Engineering Technology Science and Research **5**, 1-5 (2018)
45. Panini S.S.*, Nayak M., Narendranath K.C.S.*, Pradhan P.C., Athiray P.S.*, Sreekumar P.*, Lodha G.S., Tiwari M.K.
Development of multilayer mirrors for space-based astronomical X-ray optics
Journal of Optics **47**, 91-95 (2018)
46. Pant K. K., Kumar V., Biswas B., Kumar A., Lal S., Chandran S., Gupta S. K., Khursheed Md., Nerpagar P., Sarkar A.K., Pandit R.K., Ruwali K., Sreeramulu K., Das S., Shinde R.S., Chouksey S., Parate J.K., Bhanage V., Deshpande P.P., Tiwari S., Joshi M, Jain L., Valecha A., Pathak A. Kale U., Wanmode Y., Mohania P., Mulchandani J., Patel A., Acharya M., Mahawar A., Lad M., Jain M.K., Tiwari N., Bagduwal P.S., Sathe V.G., Joshi S., Shiroman R., Yadav A.S., Kumar R., Singh A., Dwivedi V.K., Borage M.B., Tiwari S.R.
First lasing in an infrared free electron laser at RRCAT, Indore
Current Science **114**, 367-373 (2018)
47. Patel H.S., Kushwaha P.K., Swami M.K.
Photonic nanojet assisted enhancement of Raman signal : effect of refractive index contrast
Journal of Applied Physics **123**, 023102(1-6) (2018)
48. Patel H.S., Kushwaha P.K., Swami M.K.
Generation of highly confined photonic nanojet using crescent-shape refractive index profile in microsphere
Optics Communications **415**, 140-145 (2018)
49. Patra N.*, Prajapat C.L.*, De R.*, Rao K.D.*, Babu P.D.*, Sinha A.K., John S.*, Barshilia H.C.*, Jha S.N.*, Bhattacharyya D.*
Correlation of structural ordering with magnetic properties of pulsed laser deposited Co_2FeGa Heusler alloy thin films
Journal of Alloys and Compounds **748**, 653-670 (2018)
50. Pattnayak P.K.*, Doohan R.S., Chandel S.*
Preliminary design of turbine wheel for high-speed cryogenic turboexpander for helium liquefier
International Journal of Engineering Technology Science and Research **5**, 855-861 (2018)
51. Pavithra S.*, Lo Ji.*, Rahul K.*, Sekhar B.N.R., Cheng B.M.*, Mason N.J.*, Sivaraman B.*
Vacuum ultraviolet photoabsorption of prime ice analogues of Pluto and Charon
Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy **190**, 172-176 (2018)
52. Pradhan P.C., Majhi A., Nayak M.
Optical performance of $\text{W/B}_4\text{C}$ multilayer mirror in the soft x-ray region
Journal of Applied Physics **123**, 095302(1-8) (2018)
53. Singh S., Tiwari V.B., Mishra S.R., Rawat H.S.
Effect of Zeeman slower beam on loading of a Krypton magneto-optical trap
Journal of Experimental and Theoretical Physics **126**, 441-445 (2018)
54. Ramesh T.*, Rao G.N.*, Suneetha T.*, Shinde R.S., Rajendar V.*, Murthy S.R.*, Kumar S.A.*
Microwave-hydrothermal synthesis of $\text{Y}_3\text{Fe}_5\text{O}_{12}$ nanoparticles: sintering temperature effect on structural, magnetic and dielectric properties
Journal of Superconductivity and Novel Magnetism **31**, 1899-1908 (2018)
55. Ramovatar*, Coondoo I.*, Satapathy S., Panwar N.*
Structural, microstructural, ferroelectric and

- photoluminescent properties of praseodymium modified $\text{Ba}_{0.98}\text{Ca}_{0.02}\text{Zr}_{0.02}\text{Ti}_{0.98}\text{O}_3$ ceramics
Ceramics International **44**, 1690-1698 (2018)
56. Rao P.N., Gupta R.K.*, Saravanan K.*, Bose A.*, Joshi S.C., Ganguli T., Rai S.K.
Investigation of composition of boron carbide thin films by resonant soft x-ray reflectivity
Surface and Coatings Technology **334**, 536-542 (2018)
57. Raut, S.*, Babu, P.D.*, Sharma, R.K., Pattanayak, R.*, Panigrahi, S.*
Grain boundary-dominated electrical conduction and anomalous optical-phonon behaviour near the Neel temperature in YFeO_3 ceramics
Journal of Applied Physics **123**, 174101(1-18) (2018)
58. Sagdeo A., Nagwanshi A., Pokhriyal P., Sinha A.K., Rajput P.*, Mishra V.*, Sagdeo P.R.*
Disappearance of dielectric anomaly in spite of presence of structural phase transition in reduced BaTiO_4 : effect of defect states within the bandgap
Journal of Applied Physics **123**, 161424(1-8) (2018)
59. Saha D., Misra P., Joshi M., Kukreja L.M.
Comment on structural and electrical properties of atomic layer deposited Al-doped ZnO films
Advanced Functional Materials **28**, 1702875(1-4) (2018)
60. Sahu V.K., Das A.K., Ajimsha R.S., Misra P.
Studies on transient characteristics of unipolar resistive switching processes in TiO_2 thin film grown by atomic layer deposition
Journal of Physics D: Applied Physics **51**, 215101 (1-8) (2018)
61. Sharma B.*, Chaudhari S., Joshi N.K.*
Machine learning algorithms: an overview and its application in cyber security
International Journal of Latest Trends in Engineering and Technology IC3NS 2018, 33-38
62. Sharma G.*, Kumar D.*, Tyagi S.*, Reddy V.R.*, Rawat R.*, Sinha A.K., Lalla N.P.*, Sathe V.*
Spin-lattice coupling and complex thermal expansion in $\text{Ca}_2\text{FeAlO}_5$
Journal of Alloys and Compounds **732**, 358-362 (2018)
63. Sharma P., Kumawat J., Kumar S., Sahu K., Verma Y., Gupta P.K.*, Rao K.D.*
Feasibility of speckle variance OCT for imaging cutaneous microvasculature regeneration during healing of wounds in diabetic mice
Laser Physics **28**, 025601(1-6) (2018)
64. Shiva, S.*, Palani, I.A.*, Paul, C.P., Singh, B.
Laser annealing of laser additive manufactured Ni-Ti structures: an experimental numerical investigation
Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, **232**, 1054-1067 (2018)
65. Singh A.S.*, Singh R.*, Patel T.*, Okram G.S.*, Lakhani A.*, Ganeshan V.*, Ghosh A.K.*, Jha S.N., Patil S.*, Chatterjee S.*
Tuning of carrier type, enhancement of linear magnetoresistance and inducing ferromagnetism at room temperature with Cu doping in Bi_2Te_3 topological insulators
Materials Research Bulletin **98**, 1-7 (2018)
66. Singh Asha, Jayabalan J., Khan S., Chari R.
Femtosecond laser induced photoluminescence enhancement of TGA-capped CdTe quantum dots
Journal of Luminescence **194**, 45-49 (2018)
67. Singh K.*, Reddy R.*, Sharma G.*, Verma Y., Gardecki J.A.*, Tearney G.*
In-line optical fiber metallic mirror reflector for monolithic common path optical coherence tomography probes
Lasers in Surgery & Medicine **50**, 230-235 (2018)
68. Singh S.*, Naghma R., Kaur J.*, Antony B.*
Study of elastic and inelastic cross sections by positron impact on inert gases
European Physical Journal D **72**, 69 (2018)
69. Sinha D.K.*, Ansari M.S., Ray A.*, Trivedi G.*, Chatterjee A.*, Schrimpf R.D.*

- Fast ionization-front-induced anomalous switching behaviour in trigger bipolar transistors of Marx-bank circuits under base-drive conditions
IEEE Transactions on Plasma Science **46**, 2064 (2018)
70. Sinha G.
Conceptual design of a compact high gradient quadrupole magnet of varying strength using permanent magnets
Physical Review Accelerators and Beams **21**, 022401(1-14) (2018)
71. Sinha M., Modi M.H., Ghosh H., Yadav P.K., Gupta R.K.
Influence of core-hole effect on optical properties of Magnesium Oxide (MgO) near Mg L edge region
Journal of Synchrotron Radiation **25**, 771-776 (2018)
72. Soharab M., Bhaumik I., Bhatt R., Saxena A., Karnal A.K.
Effect of Yb co-doping on the spectral properties of Er:YVO₄ single crystal: A Judd Ofelt analysis
Journal of Luminescence **200**, 280-286 (2018)
73. Tah, T.*, Singh, C.K.*, Amirthapandian, S.*, Madapu, K.K.*, Sagdeo, A., Ilango, S.*, Mathews, T.*, Dash, S.*
In-situ formation of Ge-rich SiGe alloy by electron beam evaporation and the effect of post deposition annealing on the energy band gap
Materials Science in Semiconductor Processing
Materials Science **80**, 31-37 (2018)
74. Tiwari N.*, Kumar S.*, Kamal C., Chakrabarti A., Prajapat C.L.*, Mishra P.K.*, Mondal P., Jha S.N.*, Bhattacharyya D.*
Structural investigations of (Ni,Cu) Co-doped ZnO nanocrystals by X-ray absorption spectroscopy
Chemistry Select **3**, 5644 (2018)
75. Tripathy H. *, Rai A.K., Hajra R.N.*, Shanthi N.V.*, Subramanian R. *, Saibaba S.*
High-temperature thermophysical properties of 18Cr 9Ni 2.95Cu 0.58Nb 0.1C (mass%) austenitic stainless steel
Journal of Thermal Analysis and Calorimetry **131**, 2749-2761 (2018)
76. Uppal A., Bose B.
Synthesis, stability, and in vitro oral cancer cell toxicity of human serum albumin stabilised gold nanoflowers
IET Nanobiotechnology **12**, 292-297 (2018)
77. Verma R.S., Ahlawat S., Uppal A.
Optical guiding-based cell focusing for Raman flow cell cytometer
Analyt **143**, 2648-2655 (2018)
78. Verma S., Rao B.T., Sathe V.*, Bhartiya S., Patel H.S., Kaul R., Singh B.
Optical and surface enhanced Raman scattering responses of densely packed Ag-Au alloy nanoparticle films of varied composition and thickness
Journal of Alloys and Compounds **753**, 395-406 (2018)
79. Warshi M.K.*, Mishra V.*, Sagdeo A., Mishra V.*, Kumar R. *, Sagdeo P.R.*
Structural, optical and electronic properties of RFeO₃
Ceramics International **44**, 8344-8349 (2018)
80. Xie T. *, Dongliang G. *, Ghosh H., Ghosh A. *, Soda M. *, Masuda T. *, Itoh S. *, Bourdarot F. *, Regnault L-P*, Danilkin S. *, Li S. *, Luo H. *
Neutron spin resonance in the 112-Type Iron-Based Superconductor
Physical Review Letters **120**, 137001 (2018)
81. Yadav A.K.*, Verma A.*, Kumar S., Srihari V.*, Sinha A.K., Reddy V.R.*, Liu S.W.*, Biring S.*, Sen S.*
Investigation of La and Al substitution on the spontaneous polarization and lattice dynamics of the Pb_(1-x)La_xTi_(1-x)Al_xO₃ ceramics
Journal of Applied Physics **123**, 124102(1-10) (2018)
82. Yesappa L.*, Niranjana M.*, Ashokkumar S.P.*, Vijeth H.*, Basappa M.*, Dwivedi J., Petwal

V.C., Ganesh S.*, Devendrappa H.*
Optical properties and ionic conductivity studies of an 8 MeV electron beam irradiated poly (vinylidene fluoride-co-hexafluoropropylene)/LiClO₄ electrolyte film for opto-electronic applications
RSC Advances **8**, 15297-15309 (2018)

B. Books/Book Chapters

1. Naik P.A., Arora V, Prasad Y.B.S.R., Chakera J.A., Gupta P.D.
Materials under intense laser irradiation
Materials under extreme conditions: recent trends and future prospects, Ed. by A.K. Tyagi, S. Banerjee
Amsterdam, Elsevier, ISBN 97808013007, pp. 501-532
2. Roy S.B.
Materials in a high magnetic field
Materials under extreme conditions: recent trends and future prospects, Ed. A.K. Tyagi, S. Banerjee
Amsterdam, Elsevier, ISBN 97808013007, pp. 755-789

C. Invited Talks

1. Banik S.
4f magnetism in rare-earth intermetallics studied using photoelectron spectroscopy at Indus Synchrotron
Annual meeting on Physics of Strongly Correlated Electron Systems (PSCES 2018), Mandi, April 2- 4, 2018
2. Dwivedi J.
Development of agricultural radiation processing facility and its linacs
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
3. Dwivedi J.
Development and status of agricultural radiation processing facility at Indore
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018

4. Ganguli T.
Science with Indus beamlines
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018
5. Ghodke A.D., Husain R., Kumar P., Fakhri A.A., Abdurrahim, Jena S.K., Kant P., Tyagi D.K., Meena V.K.
Beam dynamical considerations for High Brilliance Synchrotron Radiation Source (HBSRS)
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
6. Haridas G.
Radiation physics & safety studies at advanced radiation facilities
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018
7. Jain A., Sharma D.K., Gupta A. K., Kumar N., Pathak K., Kumar R., Badapanda M.K., Lad M.
Design and commissioning of high power solid state RF amplifier for Indus-2 RF system
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
8. Jayabalan J.
Ultrafast hot-electron transport in metal-semiconductor hybrid nanostructure,
National Photonics Symposium (NPS-2018), Kochi, 27th Feb - 1st March, 2018
9. Joshi S.C.
Status of R&D activities for Indian Spallation Neutron Source
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
10. Kane S.R.
Instrumentation at synchrotron radiation beamlines
National Conference on Optics Photonics and Synchrotron Radiation for Technological Applications (OPSR-2018), Indore, Apr. 29th - May 2nd, 2018

11. Kumar V., Sharma A., Jana A.R., Patidar C.B., Pal M.K., Kulkarni N., Arora P., Goyal P.K., Jana P.K., Prakash R., Gaur R., Dhingra R., Singh U., Joshi S.C.
Progress on accelerator physics studies for ISNS
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
12. Lad M., Kumar R., Jain A., Jain M.K., Badapanda M.K., Tiwari N., Tiwari A., Bohrey A., Deo R.K., Sharma D.K., Arora R., Gupta A.K., Bagduwal P.S., Rao N.J., Prasad M., Upadhyay R., Tripathi A., Kumar N., Sharma D., Tyagi R., Pathak K.
Upgradation of RF technology in Indus-2 synchrotron
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
13. Modi M.H.
Soft x-ray optical behaviour: a tool to determine compositional details in thin films of compound materials
National Conference on Optics Photonics and Synchrotron Radiation for Technological Applications (OPSR-2018), Indore, April 29th - May 2nd, 2018
14. Moorti A.
High-intensity laser plasma interaction as intense radiation sources
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018
15. Naik P.A.
Accelerator activities at Raja Ramanna Centre for Advanced Technology
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
16. Pant K.K.
Free electron lasers – the 4th generation light source
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018
17. Pant K.K.
The infra-red FEL at RRCAT - development, status and future plans
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
18. Parchani G.
Engineering aspects of radiation shielding structures
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018
19. Puntambekar T.A.
Upgradation of beam diagnostics system of Indus-2 synchrotron radiation source
Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
20. Raja S.
Ultra precision optics for gravitational wave detectors
National Conference on Optics Photonics and Synchrotron Radiation for Technological Applications (OPSR-2018), Indore, April 29th - May 2nd, 2018
21. Rajasekhar B.N.
VUV spectroscopy research at Indus facilities
National Conference on Optics Photonics and Synchrotron Radiation for Technological Applications (OPSR-2018), Indore, April 29th - May 2nd, 2018
23. Rawat A.
Requirement driven development of innovative computer applications
Advances in Science, Engineering and Technology (ASET) forum at Tata Institute of Fundamental Research, Mumbai, May 25th, 2018
24. Roy S.B.
Superconducting materials for SCRF cavities and future directions
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018

25. Senecha V.K.
Physics design studies of proton accelerator and target for SNS applications
DAE-BRNS 21st National Symposium on Radiation Physics (NSRP-21), Indore, March, 5-7, 2018
26. Shinde R.S.
Indigenous development of high power circulator for accelerators at RRCAT
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
27. Shinde R.S.
Recent advances in magnetic technology developments for emerging applications in research & industry for the 21st century
IEEE Conference on Advances in Communication & Computing Technology (ICACCT -2018), Sangamner on Feb.8th, 2018
28. Shinde R.S.
Indigenous magnetic engineering & technology for accelerators at RRCAT
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29. Shrivastava P.
International collaboration activities for advanced accelerators at CERN
DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018), Indore, Jan. 9-12, 2018
30. Sinha A.K.
X-ray diffraction as a tool for crystalline structure studies
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31. Thakurta A.C.
Indus upgrade activities
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32. Thakurta A.C.
Synchrotron radiation sources, Indus-1 and Indus-2, constituting a research facility

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D. Seminar / Conference Presentations

D.1 DAE-BRNS 8th Indian Particle Accelerator Conference (InPAC-2018) Jan., 9-12, 2018, Indore

1. Abdurrahim, Kumar P., Ghodke A.D.
Beam dynamics effect of APPLE-II undulator on Indus-2 beam
2. Acharya M., Shrivastava P.
A novel droop compensation scheme for 50 kV, 2 A, 16 μ s Marx modulator
3. Aditya L.K., Meena R., Ahlawat M., Kulshreshtha P., Shinde R.S.
Development of indium doped calcium vanadium garnets for high power CW circulators at 505.8 MHz for Indus-2
4. Ahlawat M., Pareek P., Aditya L., Gaud V., Senthil S., Kulshreshtha P.K., Singh Karan, Tiwari A., Kumar Ramesh, Lad M., Shinde R.S.
Design and development of ICVG disk resonator for 505.8 MHz strip line ferrite circulator for RF systems of Indus-2
5. Ahlawat M., Pareek P., Soni R., Kumar P., Dwivedi J., Shinde R.S.
Microwave magnetic characterization of EM absorbing materials for ARPF applications
6. Arora P., Jana P.K., Kulkarni N., Kumar V.
Electromagnetic design and beam dynamics studies of 9.5/7.0 MeV 10 kW industrial electron linac with pre-buncher
7. Arora R.K., Prasad M., Kumar Ramesh, Lad M.
RF characterization and curing of harmful higher order modes of indigenous RF cavity for high beam current operation of Indus-2
8. Babbar L.K., Kumar M., Upadhyaya B.N.,

- Bhatnagar V.K., Sisodia B., Tyagi Y., Jain R., Holikatti A.C., Yadav S., Vaishnav D., Sarkar S., Tiwari S.R., Yadav D.P., Sridhar R., Puntambekar T.A.
Development and installation of upgraded beam position indicators for Indus-2 synchrotron radiation source
9. Badapanda M.K., Upadhyay R., Tripathi A., Tyagi R.K., Lad M.
Upgradation of IOT bias HVDC power supply in Indus -2, synchrotron radiation source
10. Bagchi S., Tayyab M., Chakera J.A., Naik P.A.
Proton and ion acceleration in microns: alternative approach using intense, ultra-short lasers
11. Bagduwal P.S., Sharma D., Tiwari N., Lad M.
Synchronized RF signal generation and pulsed digital control system for SHPB of IR-FEL
12. Bagduwal P.S., Tiwari N., Lad M.
31.6 MHz, 4kW solid state RF amplifier for booster synchrotron
13. Bagre M., Maurya T., Yedle A., Moulali S., Kumar V., Singh A. K., Yadav A., Srivastava V.K., Puntambekar A., Joshi S.C.
Development of process parameters for electron beam welding of various parts of a 650 MHz five cell SCRF cavities
14. Barothiya R., Singh Y., Dev S., Kelkar Y., Karandikar U.S., Thakurta A.C.
Design and development of high voltage pulse power supply for fast rise current pulse
15. Bharadwaj N.K., Gupta A., Jain A., Lad M., Punetha K.K., Joseph T.G.
Development and implementation of fast acting 'input RF drive power overload' interlock to safeguard the indus-2 solid state RF amplifiers
16. Bhisikar A.
Small signal microwave characterization and tuning of microtron radio-frequency cavities: an experience
17. Bose A., Mondal P., Raghavendra S., Srivastava A.K., Srivastava D., Joshi S.C.
In-situ study of the oxide layer evolution on nb during high vacuum heating
18. Bose A., Raghavendra S., Joshi S.C.
Study of the effect of electro polishing on intentional surface defects like pyramidal dents, pits on niobium samples
19. Bundel H.R., Tiwari S., Jain L., Deshpande P.P., Bhanage V.P.
Development of machine and human safety system for IRFEL
20. Chandran S., Biswas B., Bhanage V.P., Chouksey S., Das S., Kumar A., Gupta R.K., Joshi M., Parihar S.S., Sahu R.K., Shinde R.S., Valecha A., Kumar V., Pant K.K.
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22. Chandran S., Biswas B., Pant K.K.
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23. Chaturvedi A., Nigam N., Sharma N.K., Kane G.V., Joshi S.C.
Mechanical analysis of spoke resonator ($\beta = 0.11$) cavity for proposed low energy superconducting proton linac for ISNS
24. Chauhan A., Saifee K., Merh B.N., Agrawal R.K., Sanga S., Fatnani P.
Enhancements in Indus-2 magnet power supply control system
25. Chinna Rao P., Kher A.M., Gupta R.K., Yedle K.N., Sharma S.D.

- Fabrication of RF accelerating structures for the FEL activity at RRCAT
26. Choudhary R.S., Sandha R.S., Goswami S.G., Petwal V.C., Verma V.P., Dwivedi J., Veerbhadria T., Sisodia B., Bhatnagar V., Chouksey S., Mundra G.
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 28. Deo R.K., Jain M.K., Bagre S., Kumar G., Lad M.
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 29. Deokar D.Y., Pandey V., Sharma H., Bhange N., Kumar K.V.A.N.P.S., Joshi S., Sridhar R.
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 30. Dhara P., Vinod G., Haridas G., Kumar A., Nayak M.K.
Probabilistic safety analysis of radiation safety systems in industrial electron accelerator
 31. Dhingra R., Kulkarni N., Kumar V.
Physics design studies of 10 MeV, 325 MHz drift tube linac for the Indian Spallation Neutron Source
 32. Dhingra R., Kumar V., Kulkarni N.
Three dimensional electromagnetic simulation studies of an s-band travelling wave electron linac
 33. Doohan R.S., Kush P.K.
Performance evaluation of indigenously designed and developed aluminium plate fin heat exchangers for helium liquefier
 34. Dubey V.K., Saxena P., Singh I., Arya R.
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 35. Dwivedi V.K., Singh A., Koli M., Borage M.B., Tiwari S.R.
Design and development of new 20 kW power converters for quadrupole magnets in Indus-2
 36. Fakhri A.A., Kant P., Ghodke A.D.
Modification of Indus-2 achromat, for installation of insertion devices
 37. Gangopadhyay S., Merh B.N., Gothwal P.K., Prabhu A., Pawnarkar P., Fatnani P.
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 38. Garg A.D., Ojha A., Karnewar A.K., Puntambekar T.A.
Design of synchrotron radiation interferometer for beam size measurement in Indus-2 synchrotron radiation source
 39. Garg S.R., Baraik K., Sohan Lal, Prasad V., Ganguli T.
Design and development of pre-mirror system for planar undulator based ARPES beamline of Indus-2
 40. Gaud V., Pareek P., Singh K., Senthil Kumar S., Kulshreshtha P.K., Shinde R.S.
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 42. Gaur R., Kumar V.
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44. Gauttam V.K., Kasliwal A., Tiwari S.R.
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46. Ghodke D.V., Khare R.K., Muralikrishnan K., Prakash O., Kumar R., Arya B.K., Kumar R., Senecha V.K.
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47. Ghodke D.V., Pathak M., Khare R.K., Kumar R., Prakash O., Kumar R., Arya B.A., Krishnan M., Jain S., Senecha V.K., Joshi S.C.
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54. Gupta A. K., Jain A., Lad M., Bhalla V., Tharayil J.
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57. Gupta S.K., Lal S., Pant K.K.
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58. Haridas G*, Nayak M.K*, Sahani P.K., Kumar V., Khan S., Verma D., Sahu T.K*, Dev V., Khare M., Gupta D.K.*, Mukherjee J.T.K.*, Tripathy S.P.*, Thakur D.S., Bahadur R., Marathe R.G., Bandyopadhyay T.*, Puntambekar T.A., Thakurta A.C., Tripathi R.M.*
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59. Holikatti A.C., Jain R., Sonawane B.B., Puntambekar T.A.
Development of beam profile measurement system for industrial electron linac
60. Husain R., Ghodke A.D.
Calibration and restoration of low emittance beam optics in Indus-2 storage ring
61. Jain A.K., Bafna B.*, Kumar A., Sandha R.S., Dwivedi J.
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62. Jain A., Ghosh R., Patidar S.C., Gupta C., Singh L., Sharma D., Lakshminarayanan A., Upadhyaya B.N., Arya R., Bindra K.S., Khare P., Joshi S.C., Mistry K.K.*, Sonti S.S.K.*, Prakash P.N.*
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66. Jain R., Holikatti A.C., Yadav S., Ojha A., Puntambekar T.A.
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67. Jain R., Holikatti A.C., Petwal V.C., Sonawane B.B., Dwivedi J.
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68. Jain S.K., Kumar R., Pathak M., Ghodke D.V., Senecha V.K.
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69. Jain V.K., Grimm C.*, Gonin I.V.*, Khabiboulline T.N.*, Rowe T.*, Nicol T.*, Yakovlev V.P.*
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75. Jena S.K., Meena V.K., Fakhri A.A., Ghodke A.D.
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77. Kalkal Y., Kumar V.
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79. Kant C., Kane S.R.
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80. Kant P., Fakhri A.A., Ghodke A.D.
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89. Kokil S.V., Chauhan S.K., Raghavendra S., Rajpoot D.S., Joshi S.C.
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90. Koli M., Borage M.B., Tiwari S.R.
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105. Malik R., Sinha G., Ruwali K., Mishra A.K., Srinivasan B., Singh B., Sreeramulu K., Shinde R.S.
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106. Malik R., Sinha G., Ruwali K., Shinde R.S.
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107. Mandal B.P.*, Sinha G.
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109. Meena V.K., Husain R., Fakhri A.A., Ghodke A.D.
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110. Merh B.N., Saifee K., Chauhan A., Jena S.K., Agrawal R.K., Fatnani P.
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129. Pathak M., Khare R.K., Kumar R., Ghodke D.V., Senecha V.K.
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131. Paul S.*, Parashari H.*, Gupta A.K.*, Sinha G.
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133. Prakash R., Jana A.R., Kumar V.
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