

A. Journal Articles

1. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
Directional limits on persistent gravitational waves from advanced LIGO's first observing run
Physical Review Letters **118**, 121102 (2017)
2. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
All-sky search for short gravitational-wave bursts in the first advanced LIGO run
Physical Review D **95**, 43831 (2017)
3. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., et al.
Calibration of the Advanced LIGO detectors for the discovery of the binary black-hole merger GW150914
Physical Review D **95**, 42005 (2017)
4. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
Effects of waveform model systematics on the interpretation of GW150914
Classical and Quantum Gravity **34**, 104002 (2017)
5. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
First search for gravitational waves from known pulsars with advanced LIGO
The Astrophysical Journal **839**, 12(1-19) (2017)
6. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
GW170104: observation of a 50-solar-mass binary black hole coalescence at redshift 0.2
Physical Review Letters **118**, 221101(1-17) (2017)
7. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
Search for gravitational waves associated with gamma-ray bursts during the first advanced LIGO observing run and implications for the origin of GRB 150906B
The Astrophysical Journal **841**, 89(1-18) (2017)
8. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
Search for gravitational waves from Scorpius X-1 in the first Advanced LIGO observing run with a hidden Markov model
Physical Review D **95**, 122003 (2017)
9. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
The basic physics of the binary black hole merger GW150914
Annalen Der Physik **529**, 42736 (2017)
10. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
Upper limits on the stochastic gravitational-wave background from advanced LIGOs first observing run
Physical Review Letters **118**, 121101 (2017)
11. Abbott B.P.*, Bhandare R., Dave I., George J., Pai S.A., Pant B.C., Raja S., Rajan C. et al.
Exploring the sensitivity of next generation gravitational wave detectors
Classical and Quantum Gravity **34**, 044001(1-18) (2017)
12. Ahlawat S., Kumar N., Uppal A., Gupta P.K.
Visible Raman excitation laser induced power and exposure dependent effects in red blood cells
Journal of Biophotonics **10**, 415-422 (2017)
13. Ahmed A.*, Dhakar B.*, Kaul R., Palai R.*, Choudhury A.R.*, Chatterjee S.*
Hardfacing of AISI304 steel: fabrication of oxide-boride-nitride ceramic matrix composite layer by laser-assisted high temperature chemical reaction
Transactions of the IMF: The International Journal of Surface **95**, 207-216 (2017)
14. Ajimsha R.S., Das A.K., Misra P., Singh B.
Observation of weak localization and phase coherent electron transport in sparsely doped (Zn:Ga)O thin films
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15. Awasthi V.*, Garg V.V.*, Sengar B.S.*, Pandey S.K.*, Aaryashree*, Kumar S., Mukherjee C., Mukherjee, S.*
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Applied Physics Letters **110**, 103903(1-5) (2017)
16. Babu P.R.*, Selvamani R., Singh G., Kalainathan S.*, Babu R.*, Tiwari V.S.

- Growth, mechanical and domain structure studies of $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ single crystal grown by flux
Journal of Alloys and Compounds 721, 199-204 (2017)
17. Banik S., Das P.K.*, Bendounan A.*, Vobornik I.*, Arya A.*, Beaulieu N.*, Fujii J.*, Thamizhavel A. *, Sastry P.U.*, Sinha A.K., Phase D.M.*, Deb S.K.
Giant Rashba effect at the topological surface of PrGe revealing antiferromagnetic spintronics
Scientific Reports 7, 4120(1-9) (2017)
 18. Bansal H. *, Tiwari M.K., Mittal R.*
L X-ray intensity ratio measurements using selective L sub-shell photo-ionisation on synchrotron
Radiation Physics and Chemistry 139, 22-26 (2017)
 19. Baraik K., Singh S.D., Kumar Y.*, Ajimsha R.S., Misra P., Jha S.N.*, Ganguli T.
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Journal of Physics D: Applied Physics 123, 42979 (2017)
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Phase transformation, vibrational and electronic properties of $\text{K}_2\text{Ce}(\text{PO}_4)_2$: a combined experimental and theoretical study
Inorganic Chemistry 56, 3335-3348 (2017)
 22. Bhatt R., Bhaumik I., Ganesamoorthy S.G.*, Bright R.*, Soharab M., Karnal A.K., Gupta P.K.
Control of intrinsic defects in lithium niobate single crystal for optoelectronic applications
Crystals 7, 23 (2017)
 23. Bhowmik R.N.*, Sinha A.K.
Improvement of room temperature electric polarization and ferrimagnetic properties of $\text{Co}_{1.25}\text{Fe}_{1.75}\text{O}_4$ ferrite by heat treatment
Journal of Magnetism and Magnetic Materials 421, 120-131 (2017)
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Effect of dry air on interface smoothening in reactive sputter deposited Co/Ti multilayer
Applied Surface Science 416, 168-177 (2017)
 25. Chakraborty S.*, Sivasubramanian V.*, Singh L.H.*, Krishnan R. V.*, Sinha A.K.
Anomalous variation of Boson peak and fragility and their correlations with intermediate-range structure in $\text{PbO-B}_2\text{O}_3$ glasses
Journal of Alloys and Compounds 713, 95-107 (2017)
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Growth of anatase and rutile phase TiO_2 nanoparticles using pulsed laser ablation in liquid: influence of surfactant addition and ablation time variation
Applied Surface Science 396, 303-309 (2017)
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Applied Optics 56, 439-445 (2017)
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Comprehensive study on effect of electron beam irradiation on electrical, thermo-electric and magnetic properties of oxygen rich $\text{LaMnO}_{3.15}$ compound
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Effect of charge transfer band on luminescence properties of Yb doped Y_2O_3 nanoparticles
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 Tb^{3+}/Yb^{3+} co-doped Y_2O_3 upconversion transparent ceramics: fabrication and characterization for IR excited green emission
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 $(Yb_{0.01}Zr_{0.02}La_{0.01}Y_{0.96})_2O_3$ transparent ceramic: fabrication, structural and optical characterization for IR emission
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Detection of fungi using a long-period fibre grating
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38. Ghosh H., Sen S., Ghosh A.
Electronic origin of structural transition in 122 Fe based superconductors
Journal of Physics and Chemistry of Solids **102**, 157-167 (2017)
39. Gupta R.K., Kumar B.S.*, Sundar R., Sankar P.R., Ganesh P., Kaul R., Kain V.*, Ranganathan K., Bindra K.S., Singh B.
Enhancement of intergranular corrosion resistance of type 304 stainless steel through laser shock peening
Corrosion Engineering, Science and Technology **52**, 220-225 (2017)
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Spatially resolved Raman spectroscopy study of uniform and tapered InAs micro-nano wires: correlation of strain and polytypism
Journal of Raman Spectroscopy **48**, 855-866 (2017)
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Generation of 6.8 W of CW output power at 1550 nm using small mode field diameter Er:Yb co-doped double clad fiber in laser oscillator configuration
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A spectroscopic study on stability of curcumin as a function of pH in silica nanoformulations, liposome and serum protein
Journal of Molecular Structure **1130**, 194-198 (2017)
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Terahertz radiation source using a high-power industrial electron linear accelerator
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Electrical and optical characteristics of aerosol assisted CVD grown ZnO based thin film diode and transistor
Journal of Alloys and Compounds **696**, 727-735 (2017)

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Efficient resonance energy transfer study from Ce³⁺ to Tb³⁺ in BaMgF₄
Materials Chemistry and Physics **187**, 233-244 (2017)
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Analytical expression for position sensitivity of linear response beam position monitor having inter-electrode cross talk
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Applied Optics **56**, 1579-1584 (2017)
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European Journal of Physics **38**, 045203 (2017)
54. Kumar V.*, Rani A.*, Hussain L.*, Jha P.*, Pal V., Petwal V.C., Dwivedi J.
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Food and Bioprocess Technology **10**, 407-412 (2017)
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58. Manasa P.*, Ramachari D.*, Kaewkhao J.*, Meejitpaisan P.*, Kaewnuam E.*, Joshi A.S., Jayasankar C.K.*
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Pramana - Journal of Physics **89**, 1-6 (2017)
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Physics Letters A **381**, 1449-1456 (2017)
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Co-existence of ferroelectric and relaxor phase in polycrystalline Sn doped BaTiO_3 and tuning their phase fraction with electric field
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Laser and Particle Beams **35**, 279-285 (2017)
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Structural variation in a synchrotron-induced contamination layer (a-C:H) deposited on a toroidal Au mirror surface
Journal of Synchrotron Radiation **24**, 757-764 (2017)

B. Invited Talk

1. Fatnani P.
Large accelerator control systems for synchrotron radiation sources
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2. Jain Rajiv
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2. Bhaskar A.*, Sharma S.*, Jain Rajiv
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4. Indait P.*, Soni H.K.*, Jain Rajiv
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A combinational approach for optimal packing of parallel jobs in HPC clusters
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