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C. Seminar/Conference Presentation

C1. Invited Talk

- Chatterjee S.
Measurement of the meridional surface slope errors of toroidal mirrors used in synchrotron radiation beam lines
International Conference in Optics and Optoelectronics (ICOL-2014), Dehradun, Mar. 5-8, 2014
- Kukreja L.M.
Laser surface modifications and additive manufacturing: recent developments at RRCAT
International Experts' Panel Seminar of Project HiLase, Prague, Czech Republic, Feb. 21, 2014
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Disorder induced quantum effects in transport properties of ZnO thin films degenerately doped with Si
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- Kukreja L.M.
Lasers for 21st century and beyond
Seminar on Lasers in Research and Industrial

Technologies, Mumbai, June 23, 2014

- Nayak M.
Study of low contrast buried interfaces using resonant soft x-ray scattering
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- Pattnaik J.K.
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- Ahlawat M., Shinde R.S.
Development of wide band complex permeability measurement set-up
- Baral M., Banik S., Ganguli T., Chakrabarti A., Thamizhavel A.*, Phase, D.M.*, Sinha A.K., Deb S.K..
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- Bhakar A., Gupta S.M., Ganguli T., Sinha A.K., Singh M.N., Upadhyay A., Deb S.K., Gupta P.K.
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- Goyal A.*, Singh Gurvinderjit, Tiwari V.S.
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- Jain K., Singh G., Upadhyaya G.K., Tiwari V.S.
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- Karmakar S., Sharma R., Pathak S.K., Gupta S.M., Gupta P.K.
Study of de-watering from the gelatinous precipitate formed during co-precipitation of Nd-YAG powder



8. Lavanya M.R.*, Kamal C., Sikka S.K.*
First principles DFT study of weak C-H...O bonds in crystalline amino acids under pressure-alanine
9. Raj Mohan S., Singh M.P., Joshi M.P., Kukreja L.M.
Monte Carlo simulation of charge transport in disordered organic thin films: applicability of Meyer-Neldel rule for extracting energetic disorder
10. Srivastava H., Ganguli T., Sant T.*, Poswal H.*, Deb S.K.
In-situ study of the growth of CuO Nanowires by Energy Dispersive X-ray Diffraction
11. Yadav P.K., Kumar Shailendra, Gupta R.K., Modi M.H., Tiwari P., Lodha G.S., Deb S.K.
Role of Valence Plasmons in Transmission of Photons Through Mica Membrane in Energy Range 10-40eV
7. Gupta R.K., Singh Amol, Modi M.H., Lodha G.S.
Study on higher harmonic suppression using edge filter and polished Si wafer
8. Jain Deotale A.*, Sinha A.K., Singh M.N., Upadhyay A., Nandedkar R.V.*
Annealing effects on microstrain of cobalt oxide nanoparticles
9. Nayak M., Lodha G.S.
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10. Sabeena M.*, Murugesan S.*, Mythili R.*, Sinha A. K., Singh M.N.*, Vijayalakshmi M.*, Deb S.K.
Influence of Mo in phase stability of Ti- Mo system: Synchrotron based XRD studies

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1. Baral M., Banik S., Ganguli T., Chakrabarti A., Thamizhavel A.*, Wadikar A.*, Phase D.M.*, Deb S.K.
Electronic structure of Co-Ni-Ga Heusler alloys studied by resonant photoemission
2. Bhaumik I., Ganesamoorthy S., Bhatt R., Saxena A., Soharab M., Karnal A.K., Gupta P.K.
Doped YVO₄ single crystals: growth issues in the OFZ technique and investigation of spectroscopic properties
3. Das A., Mukharjee C., Rajiv K., Bose A., Singh S.D., Phase D.M.*, Rai S.K., Ganguli T., Joshi S.C., Deb S.K.
Hydrogen removal from e-beam deposited alumina thin films by oxygen ion beam
4. Dhamgaye V.P., Lodha G.S.
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5. Dhawan R., Rai S.K., Lodha G.S.
Effect of discharge current and deposition temperature on roughness and density of NbC films fabricated by ion beam sputtering technique
6. Ghosh H., Sen S.
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13. Tiwari M.K.
Synchrotron based X-ray fluorescence activities at Indus-2: an overview
14. Tiwari M.K., Singh A.K., Das G., Chowdhury A., Lodha G.S.
Synchrotron total reflection X-ray fluorescence at BL-16 microfocus beamline of Indus-2
15. Yadav A.K.*, Jadhav J.*, Biswas S.*, Jha S.N., Bhattacharyya D.*, Sahoo N.K.*
Cation distribution in Ni_{1-x}Zn_xFe₂O₄ using X-ray absorption spectroscopy
16. Yadav P.K., Kumar M., Rai S.K., Chakera J.A., Mukherjee C., Nayak M., Naik P.A., Lodha G.S.
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Laser drilling of concrete using long pulse Nd:YAG laser for dismantling applications
2. Bagchi S., Tayyab M., Ramakrishna B., Mandal T., Chakera J.A., Naik P.A., Gupta P.D.
Energetic negative ion generation from intense laser solid interaction
3. Benerji N.S., Yadav D.P., Singh A., Nagpure D.C., Varshnay N., Shiroman R., Kaul R., Ganesh P., Rao B.T., Singh Bijendra, Kukreja L.M.
Application of KrF excimer laser system for low cycle fatigue study on OFE copper
4. Bhagata M.S., Biswas A.K., Rana L.B., Rawat B.S., Kumar Manoj, Kukreja L.M.
Variation of discharge impedance with active medium temperature in RF excited fast axial flow CW CO₂ laser
5. Bhardwaj V., Singh A.J., Sharma S.K., Paul C.P., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Application of indigenously developed high power Diode-Pumped Solid-State (DPSS) green laser in processing of copper sheet: results of initial studies
6. Bhatt G.*, Shrivastava M., Marathe A.*, Khamari S.K., Khakha A., Porwal S., Agnihotri V., Pal S., Panchal C.J., Dixit V.K., Sharma T.K., Oak S.M.
Effect of die bonding on the performance of high power semiconductor laser diode
7. Bhatt R., Ganesamoorthy S., Bhaumik I., Karnal A.K., Gupta P.K.
Periodic domain structures in as grown Er doped LiNbO₃ crystals
8. Bhaumik I., Ganesamoorthy S., Bhatt R., Saxena A., Sohrab M., Porwal S., Karnal A.K., Gupta P.K.
Temperature dependent photoluminescence in β -Ga₂O₃ single crystal grown by optical floating zone technique
9. Biswal R., Agrawal P.K., Prakash O., Mishra G.K., Dixit S.K., Nakhe S.V.
Studies on the green-yellow spectral distribution characteristics of a copper-HBr laser
10. Biswas D.*, Shyam Sundar S., Sendhil Raja S., Srivathsan V.*
Preliminary studies on photoacoustic imaging
11. Chakravarty U., Gupta P.K., Sharma S.K., Upadhyay B.N., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Power amplification of output pulses from mode-locked Yb-doped fiber laser in all-normal dispersion configuration
12. Choubey Ambar, Jain R.K., Singh Ravindra, Agrawal D.K., Singh Rajpal, Vishwakarma S.C., Upadhyaya B.N., Oak S.M.
Reduction of debris with pulsed Nd:YAG laser cutting and dismantling using GRADIUM lens based half imaging of optical fibers
13. Debnath S.K., Verma Y., Gupta P.K.
Surface profiling using white light diffraction phase microscopy
14. Dwivedi V.K., Singh Alok, Borage M., Tiwari S., Thakurta A.C.
Design and development of laser diode driver for laser marking system
15. Ganesamoorthy S., Bhatt R., Bhaumik I., Karnal A.K., Gupta P.K.
Study of domain switching field on near stoichiometric lithium niobate crystals
16. George J., Bindra K.S., Oak S.M.
Development of a stable SESAM modelocked 1 ps laser system at ~ 13 micron
17. Ghosh C.*, Joshi M.P., Raj Mohan S., Kolli B.*, Dharmi T.S., Kukreja L.M., Samui A.B.*
Nonlinear absorption induced photoluminescence properties of donor-acceptor-donor Y-type π -conjugated polymer
18. Gupta Pradeep K., Singh A.J., Sharma S.K., Mukhopadhyay P.K., Bindra K.S., Oak S.M.



- Experimental determination of Thermo-Optic coefficient (dn/dT) for an a-axis cut Nd:YVO₄ crystal at 1342nm
19. Jain R.K., Singh Rajpal, Vishwakarma S.C., Ali S., Singh Ravindra, Choubey Ambar, Agrawal D. K., Arya R., Upadhyaya B.N., Sanyal D.N.*, Raj Rupam*, Kumar Vijay, Oak S.M.
Development of laser grooving process for cutting of 18 mm thick triangular stainless steel blocks for maintenance of PHWR's using pulsed Nd:YAG laser
 20. Jain R.K., Singh Rajpal, Vishwakarma S.C., Mishra P., Saini B.K., Ali S., Singh Ravindra, Agrawal D.K., Choubey Ambar, Arya R., Bhambra N.S., Bindra K.S., Shukla D.K., Oak S.M.
Development of water-jet assisted underwater laser cutting technique for spent fuel bundles of nuclear reactor
 21. Kale Y.B., Tiwari V.B., Singh S., Mishra S. R., Rawat H.S.
Bi-polarization spectroscopy in metastable Krypton (Kr*) atoms
 22. Kar S., Joseph L.A.*, Debnath C.*, Verma S., Dhamgaye V.P., Lodha G.S., Bartwal K.S., Gupta P.K.
Thermoluminescence studies on undoped and doped Li₂B₄O₇ single crystals irradiated with synchrotron X-rays from Indus-2
 23. Karmakar S., Pathak S.K., Sharma R., Singh Gurvinderjit, Gupta S.M., Tiwari V.S., Gupta P.K.
Vacuum sintering of Nd-YAG powders for laser host application
 24. Khan K.M., Krishna H., Dutta S.B., Majumder S.K., Rao K. Divakar, Gupta P.K.
Depth-sensitive laser induced fluorescence (LIF) spectroscopy combined with optical coherence tomography (OCT) for layered tissue analysis
 25. Kumar J., Mahakud R., Agrawal S.K., Mokhariwale A., Prakash O., Dixit S.K., Nakhe S.V.
Studies on the thermal regeneration and temperature stability of fiber Bragg gratings written in Ge doped and Ge & B co-doped photosensitive fiber by 255 nm beam
 26. Kumar P., Saini V.K., Agrawal S.K., Mokhariwale A., Prakash O., Dixit S.K., Nakhe S.V.
Saturation absorption spectroscopy of europium transition at 576.52 nm in Eu/Ne hollow cathode lamp
 27. Kumar P., Saini V.K., Purbia G.S., Agarwal S.K., Mokhariwale A., Prakash O., Dixit S.K., Nakhe S.V.
Intermodulated optogalvanic spectroscopy of excited state ytterbium transition at 648.9 nm in Yb/Ne hollow cathode lamp
 28. Kumar S., Verma Y., Sharma P., Shrimali R., Gupta P.K.
Dual beam based absolute velocity measurement using single detector spectral domain Doppler optical coherence tomography
 29. Kushwaha P.K., Jayanath C.P.K., Swami M.K., Uppal A., Patel H.S., Gupta P.K.
Interaction of Gaussian beam with microspheres: Effect of off-axis excitation
 30. Mandal T., Tayyab M., Arora V., Rathore R., Bagchi S., Mukharjee C., Chakera J.A., Naik P.A., Gupta P.D.
Study of divergence of fast electrons generated by irradiation of multilayered foil target with high intensity laser pulses
 31. Marathe A.*, Bhatt G.*, Khamari S.K., Pal S., Rajiv K., Mukharjee C., Panchal C.J.*, Dixit V. K., Sharma T.K., Oak S.M.
Facet coating and its effect on the characteristics of 980nm quantum well laser diode
 32. Mishra P., Jain R.K., Kuruvilla A., Singh Rajpal, Upadhyaya B.N., Bindra K.S., Oak S.M.
Development of 115 W of narrow line width single transverse mode all-fiber Yb-doped CW fiber laser
 33. Mukhopadhyay P.K., Gupta Pradeep K., Bindra K.S., Oak S.M.
Widely tunable narrow line-width ytterbium doped all-fiber ring laser using multimode interference filter
 34. Mukhopadhyay P.K., Sharma S.K., Singh A.J., Gupta Pradeep K., Bindra K.S., Oak S.M.
Stable and sustained self-pulsing operation in Ytterbium doped ring fiber laser



35. Pathak Ayukt K., Tiwari S., Bhange V., Jain L., Deshpande P.P., Navathe. C.P.
Design of PC based control system for Bose Einstein condensation experiments
36. Pathak S.K., Selvamani R., Porwal S., Karmakar S., Singh Gurvinderjit, Sharma T.K., Gupta S.M., Tiwari V.S., Gupta P.K.
Limit of neodymium doping in Y_2O_3 for laser-host applications
37. Patheja P., Dasgupta R., Dube A., Gupta P. K.
Use of optical tweezers to visualize tunneling nanotubes (TNTs) in tumor spheroids and for measurements of elastic parameters of TNTs
38. Paul C.P., Mishra S.K., Kumar Atul, Bhargava P., Preamsingh C.H., Nagpure D.C., Kukreja L.M.
Architecting functionally graded Ti-Porous structures using laser rapid manufacturing
39. Prasad Y.B.S.R., Barnwal S., Kamath M.P., Yadav Y., Goswami M., Joshi A.S., Naik P.A., Gupta P.D.
Shadowgraphy measurements of shockwave evolution in transparent media
40. Rana L.B., Kumar Manoj, Bhagat M.S., Kukreja L.M.
Experimental and theoretical studies on glass cutting using CW CO_2 laser
41. Rao B.S., Moorti A., Naik P.A., Gupta P.D.
Effect of chirp on self-modulation and laser wake-field electron acceleration in the regime of quasi-monoenergetic electron beam generation
42. Rao B.S., Moorti A., Rathore R., Chakera J.A., Naik P.A., Gupta P.D.
High quality, stable electron beams from laser wake-field acceleration in high-density plasma
43. Sahu K., Bansal H., Sharma Mrinalini, Dube A., Gupta P.K.
Antimicrobial photodynamic treatment induced by red light and poly-L- lysin conjugated chlorine p6 leads to enhanced nitrite level and healing in Methicilin resistant Staphylococcus aureus (MRSA) infected wounds of diabetic mice
44. Saini V.K., Kumar P., Sarangpani K.K., Dixit S.K., Abhinandan L., Nakhe S.V.
Development of compact and versatile hollow cathode lamp for Li optogalvanic studies
45. Saini V.K., Kumar P., Purbia G.S, Sarangpani K.K., Dixit S.K., Nakhe S.V.
Studies of copper transitions by pulsed optogalvanic effect using in-house developed Cu/Ne hollow cathode lamp
46. Sharma M.L., Upadhyay J., C.P.Navathe C.P.
Development of a tunable nanosecond delay generator for synchronization of fast optical events in electro-optic devices
47. Sharma P., Verma Y., Dube A., Kumar S., Gupta P. K.
Imaging of normal and cancerous hamster cheek pouch using polarization sensitive optical coherence tomography
48. Sharma S.K., Singh Yeshpal, Verma Sunil, Bartwal K.S., Gupta P.K.
Investigation on growth, structural and optical properties of zinc cadmium thiocyanate (ZCTC) metal-organic crystal
49. Sharma S.K., Verma Sunil, Singh Yeshpal, Bartwal K.S., Gupta P.K.
Rapid growth of KDP and LAP crystals by solute feeding during unidirectional growth
50. Shukla V., Chari R., Singh C.P., Bindra K.S.
Optical limiting studies of nickel nanoparticles synthesized by liquid phase pulsed laser ablation
51. Singh A.J., Sharma S.K., Gupta Pradeep K., Mukhopadhyay P.K., Bindra K.S., Oak S.M.
Development of DPSS green laser generating 140W of average power with $M^2 \sim 10$
52. Singh Asha, Khan S., Yogi P., Jayabalan J., Chari R.
Quenching of photoluminescence of CdTe quantum dots by Ag nanoparticles
53. Singh C.P.
Theoretical analysis of all-optical switching



- characteristics of terpyridyl platinum(II) pentynyl complex
54. Singh J.*, Paul C.P., Karnewar A.K., Mishra S.K., Prem Singh C.H., Puntambekar T.A., Kukreja L.M. Laser rapid manufacturing and characterization of various transit compositions of Ti-SS304L transition Joint with Ni interlayers
55. Singh Nageshwar, Jain Rajiv, Vora H.S. Data acquisition system for studies of dye laser thermal properties
56. Singh Nageshwar, Kumar Abhay, Jain Rajiv, Vora H.S. Thermal and flow analysis of a high repetition rate dye laser gain medium
57. Singh Ravindra, Choubey Ambar, Jain R.K., Agrawal D.K., Vishwakarma S.C., Ali S., Ganesh P., Kaul R., Upadhyay B.N., Oak S.M. A comparative study of heat affected zone and cut quality in underwater laser cutting of mild steel and stainless steel
58. Singh S., Tiwari V.B., Mishra S.R., Rawat H.S. Development of a magneto-optical trap for metastable Krypton atoms
59. Soharab M., Bhaumik I., Bhatt R., Saxena A., Karnal A.K., Satapathy S., Gupta P.K. Effect of Yb concentration on the optical properties of Yb:YVO₄ single crystal grown by optical floating zone technique
60. Srikanth G., Kuruvilla A., Singh Rajpal, Upadhyay B.N., Bindra K.S., Oak S.M. Effect of pump wavelength on performance of Er:Yb co-doped single mode double-clad fiber laser
61. Sundar S. Shyam, Rajan C., Sendhil Raja S., Kamath M.P., Joshi A.S., Gupta P.K., Sontakke A.D.*, Gupta G., Karmakar P.*, Sen R.*, Annapurna K.* Design and fabrication of portable Nd-fluorimeter and its performance validation for use in Nd doped phosphate laser glass melting facility
62. Tayyab M., Bagchi S., Mandal T., Ramakrishna B., Chakera J.A., Naik P.A., Gupta P.D. Ion acceleration to MeV energy using 10 TW Ti:sapphire laser pulses
63. Tiwari G.N., Mishra R.K., Shukla P.K., Khare R., Nakhe S.V. Dependence of spectral output of copper bromide laser on hydrogen concentration
64. Tiwari G.N., Mishra R.K., Shukla P.K., Khare R., Nakhe S.V. Effect of hydrogen gas on the performance of copper bromide laser
65. Tiwari S.K., Mishra S.R., Rao K.H., Ram S.P., Rawat H.S. Comparison of J₀-Bessel beams generated using different techniques
66. Upadhyay J., Sharma M.L., Navathe C.P., Patidar R., Daiya D., Kumar A. Design and development of a differential Pockels cell driver for multi-pass laser amplifier
67. Uthayakumar T.*, Raja R.V.J.*, Nithyanandan K.*, Porsezian K.* Exploration of multi-frequency generation through asymmetric photonic crystal fiber coupler
68. Valecha A., Bhanage V.P., Navathe C.P. Microcontroller based laser energy measurement system for high power laser
69. Verma R.S., Kumar N., Ahlawat S., Gupta P.K. Separation of micro particles in a concentrated sample using opto electronic tweezers
70. Verma Sunil, Sharma S.K., Singh Yeshpal, Bartwal K.S., Gupta P.K. Characterization of structural defects and optical quality of large size KDP crystals using X-ray topography and optical interferometry
71. Warshi M.K.*, Bagchi S., Joshi A.S., Kamath M.P., Naik P.A., Gupta P.D. Generation and detection of surface acoustic waves in bulk solids by laser



72. Warshi M.K.*, Bagchi S., Kamath M.P., Naik P.A., Gupta P.D., Joshi A.S.
A new method for non-destructive estimation of material elastic constants by laser generated acoustic transients
73. Warshi M.K.*, Bagchi S., Joshi A.S., Kamath M.P., Naik P.A., Gupta P.D.
Optodynamic investigation of energy release in laser-solid interaction: Effect of laser focussing geometry
74. Warshi M.K.*, Bagchi S., Upadhyay J., Sharma M.L., Navathe C.P.
Real time imaging of laser induced blast wave propagation in ambient atmosphere using in-house developed intensified fast gated framing camera

C4 International Seminar on Application of Communication Technology in Library (SACITIL-2014), Kolkata, January 28-30, 2014

1. Bhushan I., Rajendiran P., Parihar Y.S., Pattnaik J.K., Rawat A.
Migration to web-based library management (LibSys 7) and its integration with RFID client software (LSmart)
2. Deshpande A., Tamrakar D., Dighe R., Pattnaik J.K., Rawat A.
Development and deployment of a digital archive of electronic theses and dissertations (ETD) at SIRC, RRCAT (Poster)
3. Dighe R., Pattnaik J.K., Bhushan I., Deshpande A., Tamrakar D., Sirohi D., Rawat A.
Role of library and information professionals in digital curation: an institutional repository (IR) approach
4. Pattnaik J.K., Rajendiran P., Parihar Y.S., Bhushan I., Rawat A.
An experience of implementing RFID technology at SIRC, RRCAT (Poster)
5. Parihar Y.S., Rajendiran P., Bhushan I., Pattnaik J.K., Rawat A.
Library stock verification using RFID technology and library management software

C5 Others Seminars/Conference Presentation

1. Chatterjee A., Khamari, S. K., Dixit, V. K., Sharma T. K., Oak S. M.
An accurate measurement of carrier concentration in an inhomogeneous GaN epitaxial layer from hall measurements
Proc. Physics of Semiconductor Devices, Environmental Science and Engineering, (2014)
2. Chaudhari S., Chauhan H., Tomar S.S., Rawat A.
User and device tracking in private networks by correlating logs: a system for responsive forensic analysis
4th International Conference on Communication Systems and Network Technologies (CSNT-2014), Apr. 7-9, 2014
3. Jain A., Khare G., Rajan A., Manjhi N., Pathy D., Rawat A.
Implementation issues and challenges with PKI infrastructure and its integration with in-house developed IT Applications
CSIBIG 2014, Indore, Mar., 8-9, 2014
4. Jana D., Porwal S., Sharma T.K., Kumar Shailendra, Oak S.M.
Laser assisted surface photovoltage spectroscopy: a new tool for an accurate determination of the bandgap of semiconductor epitaxial layers
Proc. Physics of Semiconductor Devices, Series: Environmental Science and Engineering, (2014)
5. Khamari S.K., Porwal S., Sharma T.K., Oak S.M.
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