

**Schedule of 29th National (Virtual) Conference on Condensed Matter Physics - Condensed Matter Days
(CMDAYS21)**



झारखण्ड केन्द्रीय विश्वविद्यालय
Central University of Jharkhand
(Established by an Act of Parliament of India, 2009)



Day 1: 10 December 2021, Friday

Inaugural Session (10:00 AM - 11:00 AM, IST)		
Track-1(meet.google.com/nad-kqvw-fgd)		
Time (IST)	Event	Details
10:00 - 10:02	Inaugural Song	
10:02 - 10:05	Introduction & Welcome Address by Convenor, CMDAYS2021	Dr. Avijit Ghosh, DoP, CUJ
10:06 - 10:10	Address by HoD, Physics, CUJ	Dr. D. Singh, DoP, CUJ
10:11 - 10:15	Address by Dean, School of Natural Science, CUJ	Prof. A. K. Padhy, Dean, Natural Sciences
10:16 - 10:21	Briefing by Chairman, Central Organising Committee	Dr. D. Mohanta, Tezpur University
10:22 - 10:32	Address by Special Guest	Prof. Amlan J. Pal, Director and J. C. Bose National Fellow, UGC-DAE CSR, Indore
10:33 - 10:43	Address by Chief Guest	Prof. Arup Kumar Raychaudhuri, SERB Distinguished Fellow, CSIR-CGCRI, Ex-Director, SNBNCBS, Kolkata
10:44 - 10:53	Presidential Address by Vice Chancellor, Central University of Jharkhand	Prof. Kshiti Bhusan Das, Honourable V.C., Central University of Jharkhand
10:54 - 10:55	Declaration: Opening of the conference	Prof. Kshiti Bhusan Das, Honourable V.C., Central University of Jharkhand
10:56 - 10:58	Vote of Thanks by Joint Convenor	Dr. Basudev Pradhan, DEE, CUJ
10:59 - 11:00	National Anthem	

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Session-1: (11:15 AM - 01:55 PM, IST)		
Track-1(meet.google.com/nad-kqvw-fqd)		
Chair: Prof. S. Medhekar, CUJ Ranchi		
11:15 - 12:00	Plenary Talk 1: Prof. Arup Kumar Raychaudhuri, SERB Distinguished Fellow, CSIR- CGCRI, Ex-Director, SNBNCBS, Kolkata, India Title: <i>“Effect of disorder and phase coexistence on a Mott metal-insulator transition”</i>	
	Track-1(meet.google.com/nad-kqvw-fqd)	Track-2 (meet.google.com/gob-rctw-hab)
	Chair: Prof. S. Medhekar, CUJ, Ranchi Co-Chair: Dr. Vineet Kumar Agotiya, CUJ, Ranchi	Chair: Prof. S. K. Samdarshi, CUJ, Ranchi Co-Chair: Dr. Bhupendra Singh, CUJ, Ranchi
12:01 - 12:30	Invited Talk-1: Prof. Mrinal Pal, CGCRI, Kolkata, India Title: <i>“Multicolored emission from pristine ZnO nanostructure: A potential single source white LED”</i>	Invited Talk-2: Dr. Anup Kumar Bera, Bhabha Atomic Research Centre, Mumbai, India Title: <i>“Quantum Magnetism of the Naturally Grown Low-Dimensional Spin Systems”</i>
12:30-12:45	CMD077: Kuntal Bhattacharyya, University of Hyderabad, “Field and temperature dependent spin-filtering in a dissipative single molecular transistor”	CMD005: Ramandeep Kaur, Akal University, Punjab, “Magnetic Ordering and Electronic Structure of Rare Earth Double Perovskites $\text{Re}_2\text{ZnIrO}_6$ (Re= Nd, La) ”
12:45-1:00	CMD056: Puja Sharma, Central University of Jharkhand, “2D photonic crystal based all optical tunable add drop filter using square ring resonator”	CMD014: Sipun Mohanty, National Institute of Technology Patna, “Study of phase transition in Cu doped La based double perovskite by X-ray diffraction and Temperature dependence Raman”
1:00-1:15	CMD078: Soham Chandra, Presidency University, “Effect of the Gaussian Random External Magnetic Field with Spatio-temporal Variation on Compensation in Ising Spin-1/2 Trilayered Square Ferrimagnet”	CMD104: Debika Debnath, University of Hyderabad, “A Semi-exact Study of the Phase diagram of the two-dimensional Extended Holstein-Hubbard model”
1:15-1:30	CMD020: Sutapa Dey, Indian Institute of Technology Madras, “A study on localized thermal spike induced modifications in nanorods under high energy ion irradiation”	CMD048: Riekhshika Sanwari, National Institute of Technology, Patna, “Thermodynamic geometry of one-dimensional spin one lattice models”

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1:30-1:45	CMD113: Arun Pandey, National Institute of Technology Silchar, "Role of noble metal deposition on pristine and composite ZnO for photocatalytic H ₂ production: A Review"	CMD075: Piyali Ghosh, University of Kalyani, "An Exact Diagonalization Study of Mixed Valence Phenomena Introducing Next to Next-Nearest-Neighbor Hopping Interaction"
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Day 1: 10 December 2021, Friday (continue)

Session-2: (2:30 PM - 6:00 PM)		
Track-1 (meet.google.com/nad-kqvw-fqd) Chair: Prof. D. Mohanta, Tezpur University Co-Chair: Dr. Sudip K. Batabyal, Amrita Vishwa Vidyapeetham, Tamil Nadu		
2:30 - 3:15	Plenary Talk 2: Prof. Amlan J. Pal, Director and JC Bose National Fellow, UGC-DAE CSR, Indore, India Title: " <i>Quantifying Urbach Energy of Disordered Semiconductors through Scanning Tunneling Spectroscopy</i> "	
	Track-1 (meet.google.com/nad-kqvw-fqd)	Track-2 (meet.google.com/gob-rctw-hab)
	Chair: Dr. Sudip K. Batabyal, Amrita Vishwa Vidyapeetham, TN Co-chair: Dr. Basudev Pradhan, CUJ	Chair: Prof. R.K. Thapa, Mizoram University Co-chair: Dr. Avijit Ghosh, CUJ
3:15 - 3:45	Invited Talk-3: Dr. Ajay Kumar Jena, Toin University of Yokohama, Kanagawa, Japan Title: " <i>What gives perovskite solar cells an edge over other PV technologies?</i> "	Invited Talk-4: Dr. Swarup Kumar Panda, Bennett University, India, Title: " <i>Bose-Einstein Condensation in the dimerized quantum magnet K₂NiMo₂O₈</i> "
3:45- 4:00	CMD021: Naba Kumar Rana, Indian Institute of Technology Bhilai, "Ag electrode-based high-efficiency perovskite solar cell"	CMD016: Subhasree Pradhan, Jhargram Raj College, Jhargram, "Two-Magnon Bound States in the Kitaev Model in a [111]-Field"
4:00 - 4:15	CMD019: Sujoy Kumar Mandal, University of Calcutta, "Harnessing of 1-D heterostructure of nitrogenated CQD decorated ZnO nanorods towards the rapid photodegradation of Rhodamine B dye"	CMD034: Prasanth P., Government Engineering College, Thrissur, Kerala, "Dynamical Temperature of some Non-linear Oscillators"
4:15 - 4:30	CMD042: Rajib Kumar Mandal, A. K. P. C. Mahavidyalaya, Hooghly, "Enhanced Photocatalytic performance of cauliflower-	CMD033: Dr. K. M. Udayanandan, Sree Narayana College, Vadakara, Kerala, "Modelling Bose Einstein Condensation as an Interacting Phenomenon"

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	like CeO ₂ -TiO ₂ nanocomposite for the RhB dye degradation under visible light''	
4:30 - 4:45	CMD063: Raj kumar, National Institute of Foundry and Forge Technology, Ranchi, ''Study of UV assisted photocatalytic degradation of organic dye''	CMD112: Md Tanwir Alam, Bhupendra Narayan Mandal University, Madhepura, Bihar, ''Weyl Fermion semimetals and Theoretical Condensed matter Physics''
4:50 - 6:00	CMD002, CMD003, CMD015, CMD025, CMD026, CMD029, CMD031, CMD043, CMD050, CMD064, CMD067, CMD068, CMD083, CMD089, CMD097, CMD106	CMD007, CMD011, CMD023, CMD024, CMD035, CMD036, CMD040, CMD041, CMD044, CMD057, CMD061, CMD079, CMD090, CMD102, CMD103, CMD108

Day 2: 11 December 2021, Saturday

Session-1: (10:00 AM - 01:55 PM, IST)		
Track-1 (meet.google.com/nad-kqvw-fqd)		
Chair: Prof. S. Bandyopadhyay, Calcutta University Co-Chair: Dr. Arnab Bhattacharya, CUJ		
10:00 - 10:45	Plenary Talk 3: Prof. Palani Balaya, National University of Singapore, Singapore Title: " <i>Understanding the factors that affect safety of Li-ion battery and Na-ion battery</i> "	
10:45-11:30	Plenary Talk 4: Dr. S. K. Samdarshi, Central University of Jharkhand, Ranchi, India Title: " <i>Solar to Hydrogen: Direct and indirect routes</i> "	
	Track-1 (meet.google.com/nad-kqvw-fqd)	Track-2 (meet.google.com/gob-rctw-hab)
	Chair: Prof. S. Bandyopadhyay, Calcutta University Co-Chair: Dr. Arnab Bhattacharya, CUJ	Chair: Prof. Deepali Sarkar, Gauhati University Co-Chair: Dr. Jayanta Kumar Baral, CUJ
11:35 - 12:05	Invited Talk-5: Dr. Arup Chakraborty, Bar-Ilan University Ramat Gan, Israel Title: " <i>Improving the structural stability and electrochemical performance of Ni-rich LiNi_{0.85}Co_{0.10}Mn_{0.05}O₂ cathode material via B-doping</i> "	Invited Talk-6: Dr. Biswanath Mukherjee, Sidho-Kanho-Birsha University, India Title: " <i>Highly oriented Single Crystals of Organic semiconductors: A Novel approach and Optoelectronic applications</i> "

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12:05 – 12:20	CMD006: <i>D. Behera, NIT Rourkela, "Electrochemical performances for La₂NiO₄ nanocomposites with MWCNT"</i>	CMD076: <i>Anil Chamuah, University of North Bengal, "Physical and Electrical Properties of Promising Chalcogenide Glassy System Doped with Ag₂S"</i>
12:20 - 12:35	CMD030: <i>D. Vignesh, Birla Institute of Technology, Ranchi, "Analysis of Symmetry Variation as a Function of Rare Earth Dopant Concentration in Proton Conducting Solid Oxide Fuel Cells"</i>	CMD084: <i>Gyanadeep Mallik, Indian Institute of Technology Bhubaneswar, "Electrical Properties of CuO Nanoflakes/Au Schottky Junction Under Photo Excitation"</i>
12:35 – 12:50	CMD038: <i>Pooja A. Zingare, R.T.M. Nagpur University, "A Green and Sustainable Approach for Fabrication of High Performance Supercapacitor Electrode Material"</i>	CMD096: <i>Apu Mondal, University of Calcutta, "Effect of different post-implantation annealing on N-implanted ZnO"</i>
12:50 – 1:05	CMD047: <i>Rakesh K. Sahoo, Indian Institute of Technology (ISM), Dhanbad, "Reversible Hydrogen Storage Capacity of Alkali Metal (Li and Na) Decorated C₂₀ Fullerene: A Density functional study"</i>	CMD099: <i>Deepu Kumar, Indian Institute of Technology Mandi, "Davydov Splitting, Resonance Effect and Phonon Dynamics in CVD grown Layered MoS₂"</i>
1:05 – 1:20	CMD070: <i>Mahasweta Chatterjee, The University of Burdwan, "MWCNT incorporated wool-ball-like CuO@NiO hybrid nanostructures for high-performance energy storage device"</i>	CMD009: <i>Ching Thian Moi, Indian Institute of Technology, Guwahati, "Electrocatalytic oxygen evolution using stable, noble metal free vanadium doped hematite co-modified by NiFe Layered Double Hydroxide"</i>
1:20 – 1:35	CMD109: <i>Gopika Rajeev Nair, National Institute of Technology Silchar, "A review on doped mixed phase Titania and its photocatalytic performance for energy production and water treatment"</i>	CMD058: <i>Aditi Sengupta, Siliguri Institute of Technology, Darjeeling, "Conduction Process in Some Promising Lithium Ion Doped Glassy Ceramics"</i>

Session-2: (2:30 PM - 6:00 PM, IST)

Track-1(meet.google.com/nad-kqvw-fqd)

Chair: Prof. Rajeev Ranjan, Indian Institute of Science

2:30 - 3:15	Plenary Talk 5: Prof. Joao Ventura, Faculty of Sciences/IFIMUP, University of Porto, Portugal Title: " <i>Triboelectric nanogenerators: from fundamental concepts to applications in harsh environments</i> "	
	Track-1 (meet.google.com/nad-kqvw-fqd)	Track-2 (meet.google.com/gob-rctw-hab)
	Chair: Prof. Mrinal Pal, CGCRI, Kolkata, India Co-chair: Dr. Anup Kumar Bera, BARC	Chair: Prof. Dilip Kumar Mishra, SoA University Co-chair: Ritupan Sarmah, Tezpur University

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3:15 - 3:45	Invited Talk-7: Dr. Sudip kumar Batabyal, Amrita Vishwa Vidyapeetham, Tamil Nadu, India Title: “ <i>Interfacial solar evaporator: harness solar energy onto the water surface</i> ”	Invited Talk-8: Dr. Manobina Karmakar, IIT Kharagpur, Title: “ <i>Ultrafast Quasiparticle Dynamics and Coulomb Screening in Transition Metal Dichalcogenides</i> ”
3:45- 4:00	CMD004: <i>Tilak Narayan Ghosh, Midnapore College, “Dielectric and Magnetodielectric effect in reduced Graphene oxide-poly(methyl methacrylate) Nanocomposite”</i>	CMD008: <i>Manisha Kumari, Indian Institute of Technology (ISM), Dhanbad, “ Microstructural evolution and electrical characteristics of Sn-doped barium titanate electroceramics”</i>
4:00 - 4:15	CMD017: <i>Shubhankar Sarkar, University of Kalyani, “Theoretical Study on Enhancement of Thermal Conductivity and Viscosity with Volume Fraction for Ethylene Glycol-Based Iron Nanofluid”</i>	CMD012: <i>Mritunjoy Prasad Ghosh, National Institute of Technology Patna, “Canted surface spins driven large exchange bias effect in single-phase spinel ferrite nanoparticles”</i>
4:15 - 4:30	CMD022: <i>M. Abushad, Aligarh Muslim University, “Influence of Cr³⁺ ions on the physical properties of anatase TiO₂ nanostructures”</i>	CMD091: <i>Sarvani Jowhar Khanam, University of Hyderabad, “Perovskite Architectures by using Additives: Challenges, Roadmap and Beyond”</i>
4:30 - 4:45	CMD032: <i>Mehroosh Fatema, Aligarh Muslim University, “Investigation of Physical Properties of (1-x)BiFeO₃ - xGdFeO₃ nanocomposites”</i>	CMD092: <i>Rajdip Roy, The University of Burdwan, “Structural and Electrical characterizations of Gd doped NBT Perovskite nanocrystals synthesized by mechanical alloying”</i>
3:41 - 4:45	CMD046: <i>Shrabani Paul, The University of Burdwan, “Microstructural and electrical characterizations of mechanically alloyed nanocrystalline thermoelectric Bi_{1.5}Sb_{0.5}Te₃ compound”</i>	CMD114: <i>Kumar Anurag, National Institute of Foundry and Forge Technology, Ranchi, “Effect of peroxide ions on Structural, Morphological and Optical properties of exfoliated graphene via electrochemical exfoliation technique”</i>
4:50-6:00	CMD013, CMD018, CMD027, CMD037, CMD039, CMD049, CMD053, CMD054, CMD059, CMD062, CMD072, CMD074, CMD082, CMD110, CMD111, CMD115, CMD117	CMD045, CMD055, CMD060, CMD069, CMD081, CMD086, CMD087, CMD088, CMD094, CMD095, CMD098, CMD100, CMD105, CMD107, CMD101, CMD116

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Day 3: 12 December 2021, Sunday

Session-1 (10:00 AM – 01:55 PM, IST)		
Track-1 (meet.google.com/nad-kqwy-fqd) Chair: Prof. B. C. Gupta, Visva Bharati University Co-Chair: Dr. Avijit Ghosh, CUJ		
10:00 – 10:45	Plenary Talk 6: Prof. Dr. Vinod K. Aswal, Bhabha Atomic Research Centre, Mumbai, India Title: “ <i>Probing Nano-Bio Systems using Neutron Scattering</i> ”	
10:45-11:30	Plenary Talk 7: Prof. Krishnendu Sengupta, Indian Association for the Cultivation of Science, India, Title: “ <i>Periodically driven Rydberg chains</i> ”	
	Track-1 (meet.google.com/nad-kqwy-fqd)	Track-2 (meet.google.com/gob-rctw-hab)
	Chair: Prof. A. K. Padhy, CUJ, India Co-Chair: Dr. Gajendra Prasad Singh, CUJ	Chair: Prof. B. R. Sekhar, IOP Bhubaneswar Co-Chair: Dr. Soumen Dey, CUJ
11:35 – 12:05	Invited Talk 9: Dr. Rajib Sarkar, Technische Universität Dresden, Germany Title: “ <i>Low temperature spin dynamics in the S = 2 kagome magnet Fe₄Si₂Sn₇O₁₆: An AC susceptibility, NMR and μSR study</i> ”	Invited Talk 10: Dr. Mukesh Jewariya, National Physical laboratory, New Delhi, India Title: “ <i>Terahertz: A tool for spectroscopy, Imaging, standard and its Prospectus</i> ”
12:05 – 12:20	CMD051: Asim Debnath, University of North Bengal, “Wide range room temperature antiferroelectric liquid crystal mixture with microsecond order switching suitable for display application”	CMD001: Paramjeet Kaur Gumber Bedi, Deen Dayal Upadhyaya College, (University of Delhi), “Dependence of Superconducting Transition Temperature on the Electron-Phonon, Electron-Paramagnons and Electron-Electron Interactions in Rhodium”
12:20 – 12:35	CMD065: Tirupathi Patri, Rajiv Gandhi University of Knowledge Technologies, Srikakulam, Andhra Pradesh, “Fortified Relaxor Ferroelectric Property at High Frequency Region in Rare Earth Ion Substituted 4-layer; BaBi _{4-x} RE _x Ti ₄ O ₁₅ (x=0.10, RE=La, Pr, Nd and Sm) Aurivillius Compounds”	CMD010: Jayanta Das, Panchakot Mahavidyalaya, Purulia, “ARPES study of the valence band electronic structure of NiO (001) (2x1) ultrathin film under magnetic phase transition”
12:35 – 12:50	CMD073: Gargee Sharma, Dayanand College (Ajmer), Rajasthan, “Theoretical Study of Superconducting Parameters of Al & Li Co-Doping Substitution on MgB ₂ ”	CMD028: Moupiya Ghosh, The University of Burdwan “A comparative study on the photocatalytic and antibacterial activities of TiO ₂ - Ag and Cu-Ag- TiO ₂ nanocomposites”

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12:50 – 1:05	CMD080: <i>Sabana Shabnam, Lady Brabourne College, Kolkata,</i> “A molecular field approach to pressure-induced phase transitions in liquid crystals: Smectic–nematic transition”	CMD052: <i>Smrutirekha Hota, Siksha ‘O’ Anusandhan University, Bhubaneswar,</i> “First Principal Study of the Electronic and Structural properties of NaFeAs Superconductor”
1:05 – 1:20	CMD085: <i>Muhammed Muhsin A., University of Kerala,</i> “Orbital magnetism of an active particle in viscoelastic suspension”	CMD071: <i>Asmita Poddar, Dream Institute of Technology, Kolkata,</i> “Dynamics of Ag ⁺ Ions in CdI ₂ Doped Electrolytes”
1:20 – 1:35	CMD093: <i>Indranil Mukherjee, Indian Institute of Science Education and Research, Kolkata,</i> “Particle hopping on a ladder: exact solution using multibalance”	

Day 3: 12 December 2021, Sunday (continue)

Session-2: (2:30 PM – 5:00 PM, IST)	
Track-1 (meet.google.com/nad-kqvw-fqd)	
Chair: Dr. Mukesh Jewariya, National Physical laboratory, New Delhi Co-Chair: Dr. Jayanta Kumar Baral, CUJ	
2:30 – 3:15	Plenary Talk 8: Prof. S. S. Prabhu, Tata Institute of Fundamental Research, Mumbai, India, Title: “ <i>Development of Terahertz (THz) Sources, and Detectors with Spectroscopy Applications</i> ”
3:15-4:00	Plenary Talk 9: Prof. Rajeev Ranjan, Indian Institute of Science, Bengaluru, India Title: “ <i>Unravelling the complex structure-property correlations in Na_{0.5}Bi_{0.5}TiO₃ -based lead-free piezoelectrics</i> ”
4:00-4:30	CMDAYS Core Committee Meeting (4:00 PM – 4:30 PM)
4:30-5:00	Valedictory ceremony

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For any queries please contact:

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Poster presentation

Abstract no.	Title of the talk	Author, Affiliation
CMD002	Study of bulk material under different conditions of pressure and volume	Soni Sharma, and Munish kumar Department of Physics, G. B. Pant University of Agriculture and Technology, Pantnagar -263145, India
CMD003	Effect of size and shape on the Young's modulus of nanomaterials	Department of Physics, G. B. Pant University of Agriculture and Technology, Pantnagar – 263145
CMD015	Temperature effects on thermal conductivity of aqueous Fe ₂ O ₃ -nanofluids: Modelling and simulations using Molecular Dynamics	<u>Dipanjan Biswas</u> , Sakti Pada Shit , Sudipta Pal Department of Physics, University of Kalyani, Kalyani, Nadia, West Bengal, India, Pin-741235
CMD025	Thermally Stable Indium Free Transparent Electrode using Ultrathin Ag Film	<u>Arun Kumar</u> , Sonia Rani, Dhriti Sundar Ghosh, Thin-film and Photovoltaics Lab, Department of Physics, Indian Institute of Technology Bhilai GEC Campus, Raipur, INDIA
CMD026	High Performance of NiO-Ag-NiO based Semi-Transparent Perovskite Solar Cell	<u>Sonia Rani</u> , Arun Kumar, Dhriti S Ghosh Thin-film & Photovoltaics Laboratory, Department of Physics, Indian Institute of Technology (IIT) Bhilai, Raipur, India
CMD029	Effect of screening on energy dependent electron-phonon relaxation rate via intrinsic and extrinsic scattering channels in graphene on glass substrate	S Arshia Khatoon and SSZ Ashraf Aligarh Muslim University, Aligarh-202002, Uttar Pradesh, India
CMD031	Green synthesis of vanadium oxide nanoparticles and their structural and optical properties	Vijay Dubey, Ketan D. Parikh Department of Physics, Smt. Devkiba Mohansinhji Chauhan College of Commerce and Science, Silvassa 396 230, University of Mumbai, Dadra and Nagar Haveli (UT), India
CMD043	Effect of Mechanical Milling on Structural, and Photocatalytic Properties of Chemically Synthesized znsno ₃ nanopowder	<u>Mamotaj Khatun</u> , Sanjoy Mukherjee and Partha Mitra Dept. of Physics, The University of Burdwan, Burdwan-713104, India
CMD050	Nanoplate like heterostructured BiOBr/BiBr/FeBr ₂ nanocomposites with enhanced photocatalytic activity for wastewater treatment: Interfacial consecutive dual Z scheme electron transfer	Moumita Mondal and S. K. Pradhan

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		Materials Science Division, Department of Physics, The University of Burdwan, Golapbag, Burdwan-713104, West Bengal, India
CMD064	Electrochemical detection of arsenic in drinking water using low-cost electrode	Deepti and Partha Sarathi Mondal Department of Applied Sciences and Humanities, National Institute of Foundry and Forge Technology, Ranchi
CMD067	Beam splitter geometry for Iron-Pnictide material	<u>Abhisek Bag</u> Institute of Physics, Sainik school, Bhubaneswar, Odisha
CMD068	Structural, optical, and photocatalytic properties of nanostructured iron oxychloride	<u>Indujalekshmi J</u> and Biju V Department of Physics, University of Kerala, Kariyavattom Campus, Thiruvananthapuram, PIN – 695 581, Kerala
CMD083	Effect of periodic driving on a generalized dice lattice	Tutul Biswas Dept of Physics, University of North Bengal, Raja Rammohunpur, 734013
CMD089	Effluent degradation capability of polygonal MnCo ₂ O ₄ spinel fabricated using Guava leaf extract as green fuel	<u>Bithika Mandal</u> and Partha Mitra Dept. of Physics, The University of Burdwan, Burdwan-713104, India
CMD097	Sequential growth of self-organized epitaxial FeSi ₂ and CoSi ₂ nanostructures on Si(111)-7×7 surfaces	J. C. Mahato, Debolina Das, Arindam Pal, Prabir Pal and B. N. Dev Department of Physics, Ramakrishna Mission Residential College (Autonomous), Narendrapur, Kolkata 700103, India
CMD106	Frequency and temperature dependent dielectric characteristics of lead-free Br doped perovskites (CH ₃ NH ₃) ₃ Bi ₂ Cl ₉ and (CH ₃ NH ₃) ₃ Bi ₂ Br _x Cl _{9-x}	<u>Paramesh Chandra</u> , Saroj Saha, Swapan K. Mandal Visva-Bharati, Bolpur
CMD007	Synthesis and Characterization of Ca-modified BFN perovskite for Device Application	Rimpi Chakravarty, Department of Physics, Central Institute of Technology Kokrajhar, Assam, India
CMD011	Competitive metastable lifetimes of surface and bulk in Ising ferromagnet	<u>Moumita Naskar</u> and Muktish Acharyya Department of Physics, Presidency University, 86/1 College Street, Kolkata 700073
CMD023	A Study on the Dielectric Properties of co-doped Bismuth Ferrite	Mukesh Shekhar, A. K. Sharma and Pawan Kumar Department of Physics, Mahatma Gandhi Central University, Bihar-845401, India

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CMD024	Design and analysis of all optical Latch using Reflective Semiconductor Optical Amplifier	<u>Kajal Maji</u> , Kousik Mukherjee and Mrinal Kanti Mandal Department of Physics, National Institute of Technology Durgapur, Durgapur, India
CMD035	Investigations of Dielectric and Ferroelectric Response of Cr ³⁺ doped ZnO Decorated-PVDF Nanocomposite Materials	Koustav Das, Tanmoy Chakraborty, Sushmita Singh, Soumyaditya Sutradhar Department of Physics, Amity University Kolkata, Kolkata-700135, India
CMD036	Fabrication and Polarization Response Study of Er ³⁺ doped ZnO Incorporated PVDF Nanocomposite Materials	Shivam Sharma, Tanmoy Chakraborty, Soumyaditya Sutradhar Department of Physics, Amity University Kolkata, Kolkata-700135, India
CMD040	Circular-lattice microstructured optical fibers with near-zero ultra-flattened chromatic dispersion and high birefringence	Kajal Mondal Department of Physics, Vivekananda Mahavidyalaya, Burdwan, 713103, West Bengal, India
CMD041	Possible Health Issues of Electromagnetic Pollution and the Corresponding Remedies	Tanmoy Chakraborty, Susmita Singh, Soumyaditya Sutradhar Department of Physics, Amity University Kolkata, Kolkata-700135, India
CMD044	Study of the electrical properties of the polyaniline palette using impedance spectroscopy	Niharika Kulshrestha GLA University, Mathura, Uttar Pradesh, India
CMD057	Investigation of large Electrocaloric, Energy density property with correlation of structural and optoelectronic characteristics study in Ho modified NBT–BT ceramics	K.S.K.R. Chandra Sekhar, R. Jyothi, K. Chandra Mouli and Tirupathi Patri Department of Engineering Physics, A.U. College of Engineering (A), Andhra University, Visakhapatnam – 530001, India.
CMD061	A Study of Structural, Magnetic, Metal –insulator transition and Magneto transport behavior of Na Doped PrMnO ₃ perovskite manganites	Bhaskar Biswas, and Sudipta Pal Department of Physics, University of Kalyani, Nadia, West-Bengal, India
CMD079	Observation of Order-Disorder Phase Transition in Sheared Nanofluids	<u>Atanu Kabiraj</u> and Satchidananda Rath School of Basic Sciences, Indian Institute of Technology Bhubaneswar, Jatni-752050, Odisha
CMD090	Effect of Fe doping on the structural, dielectric, and magnetic properties of Li V _(1-x) Fe _x O ₃ (x = 0,0.1,0.3) ceramics	<u>Divya Krishnan C K</u> , Savitha Pillai S Department of Physics, University of Kerala, Kariavattom campus, Thiruvananthapuram

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CMD102	Robust Stability, Half Metallic Ferromagnetism and Structural Properties of Newly Tailored Cobalt Based Full Heusler Compounds-A Density Functional Approach	Ashwani Kumar, Tarun Chandel and Naveen Thakur Department of Physics, Career Point University, Hamirpur HP India
CMD103	Electrical Properties of Sm ³⁺ Modified Pb(Fe _{1/2} Nb _{1/2})O ₃ Ceramics	Nawnit Kumar, Avijit Ghosh, and R. N. P. Choudhary, Department of Physics, Malti Dhari College Naubatpur, Patliputra University Patna -801109, India
CMD108	One-Step Fabrication of Bismuth Ferrite (BFO) thin films by Microwave-Assisted solvothermal Method	Pravallika Banoth, Pratap Kollu University of Hyderabad
CMD013	Partial replacement of B-site cation to stabilize the optically active cubic phase of FAPbI ₃ for optoelectronic applications	Microscience and Nanophysics Laboratory, Dept. of Physics, National Institute of Technology Silchar, Silchar-788010, Assam, India
CMD018	Si-C-N thin films for high temperature pressure sensors	Ritambhara Dash, Pragya Singh, Ashwini Kumari, Kushal Bhattacharyya, Arnab S. Bhattacharyya ^a Department of Nano Science and Technology, Central University of Jharkhand, Ranchi, 835205 ^b Department of Mechanical Engineering, Netaji Subhash Engineering College, Kolkata 700152
CMD027	Analysis of Zn concentration on CdZnTe film developed by Chemical Bath Deposition in Non Aqueous Medium	Sudeshna Surabhi, Kumar Anurag, S.R.Kumar Department of Applied Sciences and Humanities Thin Film Laboratory, National Institute of Foundry and Forge Technology, Ranchi.834003, India
CMD037	In-Situ Synthesis of Porous ZnO Nanosphere/ Graphene (ZnO-RGO) Composite for enhanced performance of electrochemical supercapacitor	Arpita Dutta, Sudip Kumar Saha, Abu Jahid Akhtar Department of Physics, Diamond Harbour Women's University, Sarisha, 743368, West Bengal, India
CMD039	Efficient performance of Cu doped MgCo ₂ O ₄ for high performance asymmetric supercapacitor	Deepa B. Bailmare, Abhay D. Deshmukh Energy Material and Device Laboratory, Department of Physics, R.T.M. Nagpur University, Nagpur-440033, India,
CMD049	Annealing effects on dc magnetron sputtered WO ₃ thin films	Azra Haroon, Arham Shareef Ahmed
CMD053	Binder Free Thermally Reduced Graphene Oxide (TRGO) for Supercapacitance Performance	Arsha M.S., Biju V, Department of Physics, University of Kerala, Kariavattom Campus, Thiruvananthapuram, Kerala, India 695581,
CMD054	Fabrication of NiCo ₂ S ₄ @ZnS as an Advanced Electrode for Asymmetric Capacitor Applications	Anandalakshmi K and Shalini Krubha A Department of Physics, Annamalai University, Annamalinagar 608 002, Tamil Nadu, India

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CMD059	Semiconducting material cobalt disulfide (CoS ₂): Synthesis and characterization	Nipom Sekhar Das, Avijit Chowdhury, Asim Roy 1Department of Physics, National Institute of Technology Silchar, Silchar, Assam-788010, India. 2Department of Condensed Matter Physics and Materials Sciences, S. N. Bose National Centre for Basic Sciences, Salt Lake, Kolkata-700106, West Bengal, India.
CMD062	Electrocaloric Effect in PZT Wafers	Ankit Kumar Singh, Partha Sarathi Mondal Department of Applied Sciences and Humanities, National Institute of Foundry and Forge Technology
CMD072	Synthesis, Characterization and Application of Sb ₂ Se ₃ in Solar Cells	Mamta, K.K. Maurya, and V.N. Singh ¹ Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, Uttar Pradesh- 201002, India ² Indian Reference Materials (BND) Division, CSIR-National Physical Laboratory, Dr. K. S. Krishnan Marg, New Delhi-110012, India
CMD074	Cadmium Sulphide thin films deposition and characterization for Device applications	Aftab Alam, Suresh kumar, D.K. Singh ¹ Department of Physics, Binod Bihari Mahto Koyalanchal University, Dhanbad- 828130, India ² Department of Physics, Chaibasa Engineering College, Kelende, Jhinkpani, Jharkhand-833215, India. ³ Department of Physics, P.K. Roy Memorial College, Dhanbad, Jharkhand-826004, India.
CMD082	Preparations and electrical characterisation of copper molybdate glassy nanocomposites	Prolay Halder, Sanjib Bhattacharya ¹ Department of physics, University of North Bengal, District: Darjeeling, Pin-734013, West Bengal, India ² Composite Materials Research Laboratory, Department of Physics, University of North Bengal, District: Darjeeling, Pin-734013, West Bengal, India ³ UGC-HRDC, University of North Bengal, District: Darjeeling, Pin-734013, West Bengal, India
CMD110	Structural, Optical & Thermal Characterization of Ce ³⁺ Activated Ca ₂ MgSi ₂ O ₇ Phosphor	<u>Shashank Sharma</u> , Sanjay Kumar Dubey Department of Physics, Kalinga University, Naya Raipur, Chhattisgarh, India

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CMD111	Optical & Thermal Properties of Ce ³⁺ Activated Monoclinic Ba ₂ MgSi ₂ O ₇ Phosphor	<u>Sanjay Kumar Dubey</u> , Shashank Sharma Department of Physics, Kalinga University, Naya Raipur, Chhattisgarh, India
CMD115	Micropore distribution in exfoliated WS ₂ sheets exposed to radiation environment	<u>Bhupali Deka</u> , D. Mohanta, Nanoscience and Soft-Matter Laboratory, Department of Physics, Tezpur University, Napaam, Tezpur, Assam 784028, India
CMD117	Improved performance study of monolithic all perovskite tandem solar cell in <i>n-i-p</i> and <i>p-i-n</i> structure by numerical simulation	<u>Prashant Kumar</u> ^a , Gyanendra Shankar ^a , and Basudev Pradhan ^{a,b,*} ^a Department of Energy Engineering, Central University of Jharkhand, Brambe, Ranchi, Jharkhand, 835205, India ^b Centre of Excellence (CoE) in Green and Efficient Energy Technology (GEET), Central University of Jharkhand, Brambe, Ranchi, Jharkhand, 835205, India
CMD045	Temperature and particle size dependent D.C conductivity of zinc sulfide nanomaterials prepared by using a green synthesis route.	DR. U. S. Senapati Department of Physics, Handique Girls' College, Guwahati-781001, Assam, India
CMD055	Structure and Ionic Diffusivity Studies in Novel Biocompatible Polymer Electrolytes	<u>Sipra Mohapatra</u> and Santosh Mogurampelly Department of Physics, Indian Institute of Technology Jodhpur, Karwar, Rajasthan 342037, India
CMD060	Effect of calcination temperature on characteristic properties of MgO nanoparticles	Shruthi K N, Mohan Kumar, Ramaraja Varma V, Sushma, Ganesh Sanjeev Department of studies in Physics, Mangalore University, Mangalagotri 574199, India
CMD069	Effect of Uniaxial and Biaxial Strain on Thermal Conductivity in Two-dimensional Layered Materials	Sapta Sindhu Paul Chowdhury, Suleman Ansari and Santosh Mogurampelly, Department of Physics, Indian Institute of Technology Jodhpur, Karwar, Rajasthan 342037, India.
CMD081	Confined Brownian Particle in the presence of linear velocity dependent force	<u>Arsha N</u> , M. Sahoo Department of physics, University of Kerala, Kariavattom, Thiruvananthapuram, 695581
CMD086	Luminescent sulfur quantum dots	Reji R V and Biju V Department of Physics, University of Kerala, Kariavattom Campus, Thiruvananthapuram,

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		PIN – 695 581, Kerala
CMD087	Structure elucidation of 1,2,4,5-tetrasubstituted Imidazole Derivative	<u>Ratika Sharma</u> Government Degree College Bishnah, Jammu
CMD088	Investigations of structural, optical and magnetic properties of CoS/Fe ₃ O ₄ composites for Bio-medical applications	<u>Gopika M S</u> and Savitha Pillai S Department of Physics, University of Kerala, Karyavattom, Thiruvananthapuram, PIN – 695 581, Kerala
CMD094	Acemannan based ferrogel for bio-medical applications	<u>Nidhi M Nair</u> and Savitha Pillai.S Department of Physics, University of Kerala, Karyavattom campus, Trivandrum-695581, Kerala
CMD095	An Overview on Perovskite Nanocrystals: Properties Synthesis & Various Applications	Karabi Chatterjee, Sudip K. Saha and Abu Jahid Akthar Department of Physics, Diamond Harbour Women's University, Sarisha, South 24 Parganas, West Bengal-743368, India
CMD098	S Study Of De Gennes Factor and Effect of Doping in Rare Earth Nickel Borocarbide Superconductors	<u>Santosh Kumar Barik</u> ¹ , Subhalaxmi Das ² , Basanta Kumar Sahoo ³ , Bibekananda Panda ⁴ ¹ PG Department of Physics, Utkal University, Bhubaneswar, India – 751004 ² Deogarh College, Deogarh, India – 768108 ³ PG Department of Physics, Govt. College (Autonomous), Angul, India – 759143 ⁴ SDVM Nilakanthanagar, Berhampur, India – 760002
CMD100	Structure Elucidation of N-[2-(5-Bromo-2-(piperidin-1-yl)-pyrimidin-4-ylsulfanyl)-4-methoxy-phenyl]- benzenesulfonamide	Kamini Kapoor Government Degree College (boys) Kathua, Jammu
CMD101	Pressure Induced Phase transition, Elastic and Thermodynamic properties of Curium Nitride	Namrata Yaduvanshi Department of Physics, University Institute of Technology, RGPV, Bhopal-462033
CMD105	Thermal Decomposition of Iron(III)Citrate Leading to Iron Oxide Nanoparticles	<u>Sani Kundu</u> and Ashis Bhattacharjee Department of Physics, Visva-Bharati, Santiniketan
CMD107	Methanol sensing study in metal diluted Spin Crossover (SCO) nanocrystalline composites	<u>Saroj Saha</u> and Swapan K. Mandal Department of Physics, Visva-Bharati, Santiniketan 731235, India

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CMD116	Experimental and numerical study of low voltage electrowetting microlens of two immiscible liquids	<u>Mahesh Chandra Dubey</u> , Dambarudhar Mohanta ¹ , ¹ Nanoscience and soft matter laboratory, department of physics, Tezpur University, Napaam, Sonitpur, Assam-784 028, India
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