

Schedule: MAX-2025				
Time		Hall - 1	Hall - 2	
Day 1 (Materials at HP, HT, Related Computation)				
10:00 - 10:30		Inaugural Function		
10:30 - 11:15		Keynote Address: Chandrabhas Narayana (IT-01)		
11:15 - 11:45		High Tea		
Technical Session - I				
11:45 - 13:00	11:45 - 12:30	Plenary Talk: R Divakar (IT-02)		
	12:30 - 12:50	ET-1: Sanjay Kumar N R		
	12:50- 13:00	O - 1 M. O. Ajeesh		
13:00 - 14:00		Lunch		
Technical Session - II			Parallel Technical Session - III on Radiation Resistant Materials	
14:00 - 16:00	14:00 - 14:30	G D Mukherjee (IT-03)	14:00 - 14:30	C David (IT- 07)
	14:30 - 15:00	Aditi Ray (IT-04)	14:30 - 14:50	ET-3: Gurpreet Kaur
	15:00 - 15:20	ET -2: Balmukund Shukla	14:50 - 15:40	O 7-10, O 26 Muthuganesh, Argha Dutta, Sujoy Sen, Sagar Sen, Saurabh Mukherjee
	15:20 - 15:50	O 2-4 Suvashree Mukherjee, Anand Kumar P, Arpita Aparajita		
16:00 - 16:15		Coffee/Tea Break		
Technical Session - IV (Theory)			Parallel Technical Session - V On Radiation Resistant Materials	
16:15 - 17:35	16:15 - 16:45	Ashok Arya (IT-05)	16:15 - 16:45	K N Uttam (IT-012)
	16:45 - 17:15	Sharat Chandra (IT-06)	16:45 - 17:25	O 11-14 K Suresh, Ramcharan Meena, Rishvana Parveen, Dipak Baisnab
	17:15 - 17:35	O 5-6 Sunilkumar, Ramesh Kumar		
20:00- 21:00		Dinner		
Day 2 (LT, HT, Magnetic Field, Related computation)				
Technical Session - VI				
10:00 - 11:15	10:00 - 10:45	Plenary Talk : Awadhesh Mani (IT-09)		
	10:45 - 11:05	ET-4 : Edward Prabu		
	11:05-11:15	O - 15 Narender Budhiraja		
11:15 - 11:30		Coffee/Tea Break		
Technical Session-VII			Parallel Technical Session - VIII on Radiation Resistant Materials	
11:30 - 13:00	11:30 - 12:00	A Sundaresan (IT-10)	11:30 - 12:00	Vinita Grover (IT-08)
	12:00- 12:20	ET-5 Mukhtiyar Singh	12:00 - 12:20	ET-7 Gayathri Banerjee
	12:20- 12:40	O 16-17 Rajesh Arun Joshi, Reshma P R	12:20 - 12:40	O 21-22 Ran Vijay Kumar, Sanatan Nath
13:00 - 14:00		Lunch		
Technical Session IX			Parallel Technical Session - X on Radiation Resistant Materials	
14:00 - 15:30	14:00- 14:30	A Tamizhavel (IT-11)	14:00 -14:30	Kabiraj D (IT-13)
	14:30- 14:50	ET- 6 Vinod K	14:30 - 14:50	ET-9 Amirthapandian S
	14:50- 15:20	O 18-20 Pallati Naresh, Sureshbabu, Bidisha Mukherjee	14:50 - 15:20	O 23-25 Abhilash Dwivedi, Manan Dholakia, Pardhu Yella
15:30 - 15:45		Coffee/Tea Break		
15:45- 17:45		Poster (P: 1-30)		
17:45 - 19:00		Cultural Program		
20:00- 21:00		Dinner		
Day 3 (Radiation, Defects & Related computation)				
Technical Session - XI				
10:00 - 10:50	10:00 - 10:30	R Govindaraj (IT-14)		
	10:30 - 10:50	ET - 10 Sinu Mathew		
10:50 - 11:00		Coffee/Tea Break		
11:00 - 13:00		Poster (P: 31-60)		
13:00- 14:00		Lunch		
14:00-15:00		Valedictory function and award distribution		

Invited Talks

Sl. No.	Title	Affiliation	Page. No.
IT-1.	Finding New Topological Insulators Using Pressure Prof. Chandrabhas Narayana	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram, Kerala	2
IT-2.	Materials Behaviour under Irradiation at High-temperatures Dr. R Divakar	Indira Gandhi Centre for Atomic Research, Kalpakkam	
IT-3.	Halide Perovskites at Extreme Condition Prof. G D Mukherjee	Indian Institutes of Science Education and Research, Kolkata	3
IT-4.	Dynamic Compression and Phase Change: The Fascinating Realm of Solids Under Extreme Conditions Dr. Aditi Ray	Bhabha Atomic Research Centre, Mumbai	4
IT-5.	Ab-initio Characterization of High Pressure Phase Transformations in CaTiSiO_5 and $\text{U}_{1-x}\text{Th}_x\text{SiO}_4$ Dr. Ashok K. Arya	Bhabha Atomic Research Centre, Mumbai	5
IT-6.	Search for Superhard Carbides using DFT Dr. Sharat Chandra	Indira Gandhi Centre for Atomic Research, Kalpakkam	6
IT-7.	Studying radiation damage in nuclear materials by using ion accelerators Dr. C David	Indira Gandhi Centre for Atomic Research, Kalpakkam	7
IT-8.	Understanding radiation response of ceramics for nuclear applications Dr. Vinita Grover Gupta	Bhabha Atomic Research Centre, Mumbai	8
IT-9.	Investigation on the evolution of ground states of selected novel systems under high pressure and high magnetic field at low temperatures Dr. Awadhesh Mani	Indira Gandhi Centre for Atomic Research, Kalpakkam	9
IT-10.	High-Pressure and High-Temperature Synthesis of Quantum Materials Prof. A Sundaresan	Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru	10
IT-11.	Anisotropic Magnetotransport and Quantum Hall Effect in Bulk Semimetallic Single Crystals Prof. A. Thamizhavel	Tata Institute of Fundamental Research, Mumbai	11
IT-12.	Dr. K N Uttam	Universtity. of Allahabad, Prayagraj	
IT-13.	Nano-scale evolution under swift heavy ion induced thermal spike Dr. Debdulal Kabiraj	Inter University Accelerator Centre, New Delhi	12
IT-14.	Defects studies in reactor structural materials and Novel oxides using Advanced Nuclear Techniques Dr. R Govindaraj	Indira Gandhi Centre for Atomic Research, Kalpakkam	13

Expert Talks

Sl. No.	Title	Affiliation	Page. No.
ET-1.	Polymorphic structural transition in $\text{Cd}_{0.9}\text{Zn}_{0.1}\text{Te}$ at high pressure Dr. Sanjay Kumar N R	Indira Gandhi Centre for Atomic Research, Kalpakkam	15
ET-2.	High Pressure Structural Investigation on Uranium Oxide Compounds Dr. Balmukund Shukla	Indira Gandhi Centre for Atomic Research, Kalpakkam	16
ET-3.	Effect of Pressure on Symmetry Breaking Transition in Uranium and Uranium Intermetallics Dr. Gurpreet Kaur	Indira Gandhi Centre for Atomic Research, Kalpakkam	17
ET-4.	Quantum transport signatures of Topological insulators (TI) at low temperatures and magnetic fields Dr. Edward Prabu	Indira Gandhi Centre for Atomic Research, Kalpakkam	18
ET-5.	Existence of dual topological phases in Sn-based ternary chalcogenides Dr. Mukhtiyar Singh	Delhi Technological University, Delhi	19
ET-6.	Magnetic/magneto-caloric studies on $\text{La}_2\text{NiMnO}_6$ based double perovskites Dr. Vinod K	Indira Gandhi Centre for Atomic Research, Kalpakkam	20
ET-7.	Tailoring ion irradiation for radiation damage studies of nuclear structural materials Dr. Gayathri N Banerjee	Variable Energy Cyclotron Centre, Kolkata	21
ET-8.	First experimental results from In-situ Ion Irradiation and Imaging with SEM (i^4 SEM) Facility Dr. Amirthapandian S	Indira Gandhi Centre for Atomic Research, Kalpakkam	22
ET-9.	Focused Helium ion beam tailoring of luminescence in hexagonal boron nitride (h-BN) Dr. Sinu Mathew	Mahatma Gandhi University, Kerala	23

List of Oral Presentations

Sl. No.	Title/ Authors	Affiliation of the presenter	Page. No.
O-1.	Pressure-induced superconducting and magnetic phases in UTe_2 M. O. Ajeesh , J. D. Thompson, E. D. Bauer, F. Ronning, S. M. Thomas, and P. F. S. Rosa	Indian Institute of Technology Palakkad, India	25
O-2.	Pressure induced emission enhancement in vacancy ordered halide double perovskite Cs_2TeCl_6 Suvashree Mukherjee , Debabrata Samanta, and Goutam Dev Mukherjee	Indian Institute of Science Education and Research Kolkata, West Bengal	26
O-3.	High Pressure XRD studies on $\text{Ho}_{0.4}\text{Eu}_{0.6}\text{MnO}_3$ P Anand Kumar , R. M. Sarguna, V. Srihari and N R Sanjay Kumar	Indira Gandhi Centre for Atomic Research, Kalpakkam	27
O-4.	Behaviour of molybdenum diphosphide at high pressure Arpita Aparajita A N , G. Shwetha, N. R. Sanjay Kumar, V. Srihari, Awadhesh Mani	Indira Gandhi Centre for Atomic Research, Kalpakkam	28
O-5.	Characterization and fabrication of metal matrix composites from machinery shop waste metal chips via friction stir processing Krishnalal M S, Sunilkumar D	National Institute of Technology Silchar, Assam,	29
O-6.	First Principle Study of Topological Phase in YPdBi Material Sanjeev, Mukhtiyar Singh and Ramesh Kumar	Guru Jambheshwar University of Science & Technology, Hisar	30
O-7.	Capsule and sample holder for irradiation of a-tig and tig weld joint specimens of wrapper (D9) to foot (SS316LN) of pfbr fuel sub-assembly in FBTR M. Muthuganesh , P. Vasantharaja, Ashish Kolhatkar, Rajesh Saxena, Ran Vijay Kumar, M. S. Rao, P. K. Chaurasia, V. Karthik, S. Joseph Winston and M. Vasudevan	Indira Gandhi Centre for Atomic Research, Kalpakkam	31
O-8.	Study of Depth-Dependent Microstructural Changes in Oxygen Irradiated Nb-1Zr-0.1C Alloy Argha Dutta , N. Gayathri, P. Mukherjee, P. Karmakar, V. Naik	Variable Energy Cyclotron Centre, Kolkata	32
O-9.	Investigations on phase transformation and ion induced luminescence in Eu doped ZrO_2 Sujoy Sen , Vikas Singh Gahlot, S.K. Srivastava, P. Jegadeesan, B. Sundaravel, S. Amirthapandian	Indira Gandhi Centre for Atomic Research, Kalpakkam	33
O-10.	Tailoring Structural, Electronic, and Magnetic Properties of CoFe_2O_4 Thin Films Using Swift Heavy Ions Irradiation	Maharaja Bhoj Govt. P.G. College Dhar, Madhya Pradesh	34

	Sagar Sen , Ambrish Dwivedi, Yksh Gupta, Sourav Chowdhury, Jayjit Kumar Dey, Moritz Hoesch, Sanjay Kumar Upadhyay, Keval Gadani, Anil Gome, V.R. Reddy, Ratnesh Gupta		
O-11.	Indigenous Development of electronics and control instrumentation for Ion accelerator based radiation damage studies and materials research K. Suresh , J.Navas, R.Govindaraj, C.David, S.K.Dhara,	Indira Gandhi Centre for Atomic Research, Kalpakkam	36
O-12.	Structural and microscopic studies of ion-irradiated NASICON ($\text{Na}_3\text{Zr}_2\text{Si}_2\text{PO}_{12}$) ceramics Ramcharan Meena , Rajendra Singh Dhaka	Inter-University Accelerator Center, New Delhi	37
O-13.	Investigation of radiation tolerance in ceramic composite and non-composite materials Rishvana Parveen , Parswajit Kalita, Rakesh Shukla, Vinita Grover, Sanjay Kedia, D.K. Avasthi	University of Petroleum and Energy Studies (UPES), Dehradun	38
O-14.	Design and Development of a High-Heat-Load Target Holder for the Medical Cyclotron Facility at VECC Dipak Kumar Baisnab , Binoy Kumar Maji, B. Sundaravel, C. David, P. Lijukrishnan, Indranil Banerjee and Vinod V, N. Gayathri and Paramita Mukherjee	Indira Gandhi Centre for Atomic Research, Kalpakkam	39
O-15.	Unveiling the low-temperature properties of CuO nanosheets: Modulating morphology, and crystallography for enhanced optoelectronic performance Narender Budhiraja , Krishna Begari, Rakesh K. Sonker	Satish Chander Dhawan Government College, Ludhiana, Punjab	40
O-16.	Effect of Annealing on Physicochemical and Optoelectronic Properties of Polyaniline Thin Films Karan K. Rathod, Jayesh R. Pawar, Munjaji E. Dudhmal, Rajesh A. Joshi	Toshniwal Arts, Commerce and Science College, Sengaon Dist. Hingoli, Maharashtra	41
O-17.	Temperature dependence of Fano effect in optical phonon mode of V_2O_5 nanoparticles Reshma P R , Arun K Prasad, Sandip Dhara	Indira Gandhi Centre for Atomic Research, Kalpakkam	42
O-18.	Thermal, Anti-bacterial and Structural analysis of bioactive glassy materials and their applications Pallati Naresh , D.Sreenivasu, K. Siva Kumar, Aravind Seema, Gangadhar Thalari, Sanjeev Kumar	Osmania University, Hyderabad, Telangana	44
O-19.	Experimental Investigation on Hot Tensile Properties of Melt-in Mode Plasma Arc Welded Inconel 625 Alloy Sheets S Sureshbabu , S Rajakumar	Annamalai University, Annamalai Nagar, Chidambaram	45
O-20.	Soft mode induced structural phase transition in $\text{Ba}_2\text{ZnTeO}_6$ at high pressures Bidisha Mukherjee , MrinmaySahu, Asish Kumar Mishra, Goutam Dev Mukherjee	Indian Institute of Science Education and Research Kolkata, West Bengal	46

O-21.	X-Ray Absorption Spectroscopy of Neutron Irradiated SS 316L and SS316LN Ran Vijay Kumar , K. Ashish, V. Karthik, R. Divakar	Indira Gandhi Centre for Atomic Research, Kalpakkam	47
O-22.	Structural, Optical and Temperature Dependent Ionic Conductivity Study of Green Chemical Synthesized Copper Sulphide Nanostructures in PVA Matrix Sanatan Kr. Nath , P. K. Kalita	B. H.College, Howly, Gauhati University	48
O-23.	Increase in Hydrostatic Limit of Pressure Transmitting Medium Methanol -Ethanol with Temperature Abhilash Dwivedi , Rahul Kaiwart, T. Balaganapathi and Himanshu Kumar Poswal	Bhabha Atomic Research Centre, Mumbai	49
O-24.	A hybrid MC-MD Approach to study the irradiation behavior of Iron Phosphate Glasses Manan Dholakia , Shakti Singh and Sharat Chandra	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	50
O-25.	Nanoindentation studies on ordered and disordered iron aluminides Pardhu Yella , Javed S. Ibrahim, Shivkumar Khaple, M.J.N.V. Prasad, M. Phani Raj	Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad	51
O-26.	Positron maker: Intense positron facility at Dhruva Reactor S. Mukherjee , D. Dutta, H. Chatterjee, M. Dev, S. Shrotriya, M. Pande, J. Kumar, T. Singh, P. K. Pujari, K. Sudarshan	Bhabha Atomic Research Center, Trombay, Mumbai	52

List of Poster Presentations

Sl. No.	Title/Authors	Affiliation of the presenting author	Page No.
P-1.	Pressure and temperature-induced electron-phonon and spin-phonon coupling in $\text{Cr}_{3.04}\text{Te}_4$ Asish Kumar Mishra , Bidisha Mukherjee, S. Thirupathaiah, Goutam Dev Mukherjee	Indian Institute of Science Education and Research Kolkata, Nadia	54
P-2.	Exploring the Pressure-Dependent Structural Transitions of $\text{RE}_3\text{TM}_4\text{Sn}_{13}$ (RE=Sr, Ca and La; TM=Rh) Compounds Through Synchrotron X-Ray Diffraction Muthukumaran Sundaramoorthy , Arumugam Sonachalam, Bobby Joseph	Bharathidasan University, Tiruchirappalli, TamilNadu	55
P-3.	Unusual pressure-volume behaviour of Hf-Nb-Ta-Ti-V high entropy alloy Nirmal Sharma , K. K. Pandey, H. K. Poswal, Nilabja K. Sarkar and Nandini Garg	Bhabha Atomic Research Centre, Mumbai	56
P-4.	Effect of plastic straining on <i>bcc-hcp</i> phase transition on pure iron: an in situ study Suraj Kumar , K. K. Pandey, Valery I. Levitas	Bhabha Atomic Research Centre, HBNI, Mumbai	57
P-5.	Spinel to perovskite transition in the Earth's lower mantle: Implication in Slab Dynamics Rabindranath Mondal , Swastika Chatterjee	Indian Institute of Science Education and Research Kolkata, Nadia	58
P-6.	Structural stability and compressibility behaviour of CeTe_2 under pressure K. Sanitha , P. Anand Kumar, S. Shyam Kumar, N. R. Sanjay Kumar, Anuj Upadhyay, R. Sudha and Rajesh Ganesan	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam, Tamil Nadu	59
P-7.	Structural Stability of Gd^{3+} and Ce^{4+} co-doped Lanthanum Zirconates Under High Pressure: Insights into Actinide Host Matrices Saideep Shirish Bhat , Irshad K. A, Bobby Joseph, Gurumurthy S C, Raghavendra K G	Manipal Institute of Technology, MAHE, Manipal, Karnataka	60
P-8.	Pressure induced topological phase in intermetallic Zintl compound RbZn_4As_3 Ramesh Kumar , Mukhtiyar Singh	Delhi Technological University, New Delhi	61
P-9.	Prediction of High Pressure Phase Transition of ThO_2 using USPEX code D. Sornadurai	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam, Tamil Nadu	62
P-10.	Structural Transition of Perovskite type LaVO_3 at High-pressures A. K. Sivadasan , K. A. Irshad, I. Packia Selvam, Bobby Joseph, S. N. Potty	Centre for Materials for Electronics Technology (C-MET), Thrissur, Kerala,	63

P-11.	Structural properties and phase transition of U_3Si under pressure: A DFT study Prasanta Kumar Maharana , Gurpreet Kaur, Sharat Chandra, R Govindaraj	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam, Tamil Nadu	64
P-12.	High pressure density functional theory studies on $CaCu_2O_3$ compound Aiswarya S M , Somesh Chandra, Gurpreet Kaur, G M Bhalerao and R Govindaraj	UGC-DAE CSR Kalpakkam Centre, Kokilamedu, Tamil Nadu	65
P-13.	Modification of Physicochemical and Optoelectronic Properties of CZTS Thin Films Using Post Deposition Treatments Munjaji E. Dudhmal , Jayesh R. Pawar, Rajesh A. Joshi	Toshniwal Arts, Commerce and Science College, Sengaon-Hingoli, Maharashtra	66
P-14.	Experimental Investigation of Aluminium Oxide (Al_2O_3) Doped Ytria Stabilized Zirconia (YSZ) Thermal Barrier Coatings Deva Priya P , Suresh Kumar J	College of Engineering, Anna University, Chennai	67
P-15.	Development Of Titanium Honeycomb Sandwich Structure for Thermal Protection Systems in Hypersonic Vehicles Suresh Kumar J , Kalaichelvan K	College of Engineering, Anna University Chennai	68
P-16.	Developing Empirical Relationship to Predict Hot-Wire TIG Welded Inconel 625 Alloy Using RSM and Machine Learning Approach M. Reddeiah , S.Rajakumar, P.Hema, S.Kavitha, K. Devakumaran	Annamalai University, Annamalai Nagar, Chidambaram	69
P-17.	Experimental Characterization Diffusion Bonded Light Weight Blade-Rings for Aero engine Application using Ti_6Al_4V Sheets with Ti_6Al_4V Wire Reinforcement S Prakashkumar , S Rajakumar, S Sureshbabu	Annamalai University, Annamalai Nagar, Chidambaram	71
P-18.	Ab-initio study of SiC, Ti and V-doped SiC nanotubes for gas sensing application Nikhil M. Solanki , Suresh V. Chaudhari, Sanjeev K. Gupta, P. N. Gajjar	University School of Sciences, Gujarat University, Ahmedabad	72
P-19.	Exploring thermal effects on dynamic uniaxial compression of single-crystal tungsten using molecular dynamics A. Abhijith , K. Basavaraj, Anuradha S. Dwivedi, Apu Sarkar, Aditi Ray	Bhabha Atomic Research Centre, Mumbai	73
P-20.	Optical properties of the NiB_6 monolayer: <i>In silico</i> study Suresh V. Chaudhari , Nikhil M. Solanki, Sanjeev K. Gupta, P. N. Gajjar	University School of Sciences, Gujarat University, Ahmedabad	74

P-21.	Electrical and Thermoelectric properties of Bi_2Te_3 and Sb_2Te_3 single crystal Nabarun Bera , Ayush Ramchandra Mokashi, Anoop M. D., Sachin Sharma, Nisha Yadav, Deepika Kanwar, Balram Tripathi, D. K. Shukla and Manoj Kumar	Malaviya National Institute of Technology, Jaipur	75
P-22.	Analysis of AC Losses in High-Temperature Superconducting Tapes Using a Magnetic Formulation Based on the Thin Shell Model Garkki B and Revathi S	National Institute of Technology Puducherry	76
P-23.	Atomic scale study of defects in Fe_2CrAl Heusler compounds Ravi Kumar Yadav , R.Govindaraj, K Vinod and V.Srihari	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	77
P-24.	Evolution of transport regimes from classical to quantum in $\text{Bi}_{1.95}\text{Sb}_{0.05}\text{Se}_3$ thin film by substrate Temperature Shivani Soni , Edward Prabu Amaladass, Jegadeesan P, S. Amirthapandian, Kishore Kumar Madupu, Ramanathaswamy Pandian, Awadhesh Mani	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	78
P-25.	Compositional Dependence of Magnetic Transition in Double Perovskite $\text{Ho}_2\text{MnNi}_{1-x}\text{Cu}_x\text{O}_6$ Systems V R Pooja , A T Sathyanarayana, K Vinod and Awadhesh Mani	Indira Gandhi Centre for Atomic Research, A CI of Homi Bhabha National Institute, Kalpakkam	79
P-26.	Superconducting and Non-Superconducting States in $\text{Nd}_{1.85}\text{Ce}_{0.15}\text{CuO}_{4\pm\delta}$: Impact of Argon Annealing Vinita Kumawat , Riya Sindhwani, K.Vinod, Kishore Kumar Madupu, T. Geetha Kumary, Awadhesh Mani	Indira Gandhi Centre for Atomic Research, Kalpakkam	80
P-27.	Cryogenic Testing of Niobium Material for Superconducting RF Cavity Applications using the RRR measurement Technique Anand Yadav , Vinesh K. Verma, Ajay Yedle, Suresh Maloth, Vikas K. Jain, Sanjay Chouksey & Mahendra Lad.	Raja Ramanna Centre for Advanced Technology, Indore	81
P-28.	Effect of Substrate Temperature on the Structural and Magnetic Properties of Cobalt Ferrite (CoFe_2O_4) Thin Films Grown by Pulsed Laser Deposition Vinay Shrivastava , Ambrish Dwivedi, Yksh Gupta, Keval Gadani, Sanjay Kumar Upadhyay, Sourav Chowdhury, Anil Gome, Ratnesh Gupta, Sagar Sen	Maharaja Bhoj Govt. P.G. College, Dhar, Madhya Pradesh	82
P-29.	Exploring the magnetic properties of La_2MMnO_6 (M = Cr, Zn) double perovskites K. Jeevanandham , K. Vinod, A. T. Sathyanarayana and Sujoy Sen	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam, Tamil Nadu	84

P-30.	Structural Investigations in Gd ³⁺ and Ce ⁴⁺ co-doped Lanthanum Zirconate Pyrochlores Vidya M, Raghavendra K G	Manipal Institute of Technology Manipal Academy of Higher Education (MAHE), Manipal	85
P-31.	Study on structural and dye degradation property of Mn doped MoO ₃ /SiO ₂ nanocomposites Boobesh S, Abuthahir J, Janardhanan P, Elango M	Government College of Technology, Coimbatore, Tamilnadu, India	86
P-32.	Assessing the Corrosion Resistance, Structural, and Energy Consumption Properties of TiO ₂ -based PEO coatings for photo catalysis on pre-anodized AA2024-Al Sanjeev Kumar Singh, Dr. P Naresh	Avanthi Degree & PG College, Hyderabad, Telangana	87
P-33.	Ballooning Behavior in End Plug Repaired Welds of Fuel Clad Tubes at Extreme Conditions Rosy Sarkar, R. Suresh Kumar, R. Manu, K. Mohan, K.Natesan	Indira Gandhi Centre for Atomic Research, Kalpakkam, Tamil Nadu	89
P-34.	Mechanical characterization of multi-directional C _f -SiC _m composites Saurav Kumar Sahoo, Arjun Mahato, Samar Mandal, M. Thangarasua, Shibayan Roy	Indian Institute of Technology Kharagpur, Kharagpur, India,	90
P-35.	Altercations in Physicochemical Properties of Soft Chemical Route Synthesized ZnO Thin Film Jayesh R. Pawar, Munjaji E. Dudhmal, Rajesh A. Joshi	Toshniwal Arts, Commerce and Science College, Sengaon-Hingoli, Maharashtra	91
P-36.	Reducing low thermal conductivity of GeTe compounds via nanostructure modulation by spark plasma sintering method A. Sampathu, Chellakumar. R, Narendran. D and M. Balakrishnan	Kalaigarnar Karunanidhi Government Arts College, Tiruvannamalai, Tamil Nadu, India	92
P-37.	Effect of Vacuum Annealing on the Cationic Distribution and Magnetic Properties of NiFe ₂ O ₄ Thin Films Ambrish Dwivedi, Vinay Shrivastava, Yksh Gupta, Keval Gadani, Sanjay Kumar Upadhyay, Sourav Chowdhury, Jayjit Kumar Dey, MoritzHoesch, Anil Gome, Ratnesh Gupta, Sagar Sen	Maharaja Bhoj Govt. P.G. College, Dhar, Madhya Pradesh	93
P-38.	Gamma-ray effects on Gd ³⁺ doped Borophosphate Glass for radiation shielding and TL-Dosimetry Applications Paul Dhinakaran, P. Vinothkumar	Saveetha Engineering College, Thandalam, Chennai	95
P-39.	Morphological evolution of MBE grown Antimony nanocrystals under ion irradiation Jinu Job, Vikas Singh Gahlot, P. Jegadeesan, Sujoy Sen, S. Amirthapandian, B. Sundaravel	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	96

P-40.	Comparative analysis of the radiation hardness of PM6 and PTB7-th for space application in organic solar cell Anuradha	Malaviya National Institute of Technology, Malviya Nagar ,Jaipur	97
P-41.	Energy Storage study on gamma irradiated PANI – CuO nano Composites S. Ramakrishnan and S. Rajakarthiyan	Thiagarajar College, Madurai	98
P-42.	Nanostructuring of Germanium surface using low energy Ga ion implantation Hrudya Radhakrishnan, Kamalesh N, Ramanathaswamy Pandian	Indira Gandhi Centre for Atomic Research, HBNI,Kalpakkam	99
P-43.	Insights into the Behaviour of Shape Memory Alloys under Extreme Conditions: A Candidate Material for the Passive Systems in Future FBR Salil Verma, Rosy Sarkar, Bhuwan Chandra Sati, R. Suresh Kumar, K. Natesan	Indira Gandhi Centre for Atomic Research, HBNI,Kalpakkam	100
P-44.	Real-time reliability analysis of 8051 microcontroller in gamma and proton environments Charu Sharma, R. P. Behera, Saif A. Khan, Puspallata Rajesh, S.Amirthapandian	Indira Gandhi Centre for Atomic Research, HBNI,Kalpakkam	101
P-45.	Defect Evolution in Sequential He and Ni Ion Implanted FeCrMnNi High Entropy Alloy S. Vinitha, S. Abhaya, C. David	Indira Gandhi Centre for Atomic Research, HBNI,Kalpakkam	102
P-46.	Study of ion beam-induced luminescence in β -Ga ₂ O ₃ by 100 keV He ⁺ ions Monu Kataria, Fouran Singh, Sujoy Sen, Christopher David and Debdulal Kabiraj	Inter-University Accelerator Centre, New Delhi	103
P-47.	Proton irradiation studies on pristine & 20 % cold work D9 samples using Medical Cyclotron Facility Binoy Kumar Maji, Dipak Kumar Baisnab, B. Sundervel, Gayathri N. Banerjee, C. David and Paramita Mukherjee	Indira Gandhi Centre for Atomic Research, Kalpakkam	104
P-48.	Ion Beam-Induced Modification in the Microstructural and Mechanical Properties of 15-5PH Steel Fabricated by Selective Laser Melting Pritam Patra, Ambuj Tripathi, Sagar Sarkar	Indian Institute of Technology Delhi, New Delhi, India	105
P-49.	Irradiation studies on mechanical properties of silicon rubber compound Suba. M, Prakash. S, Felix Lawrence D, Kodandaraman. J, Venkatesan. K. A and Rajan. K	Indira Gandhi Centre for Atomic Research, ,Kalpakkam	106
P-50.	Unveiling the structural, radiation shielding properties of BiVO ₄ - epoxy resin nanocomposites Vikram T, Abuthahir J, Sanjeevi P, Saravanakumar A, Elango M	PSG College of Arts and Science, Coimbatore, Tamilnadu, India	107

P-51.	Molecular dynamics study of self diffusion in Iron Phosphate glass Aishwarya K , Manan Dholakia, Sharat Chandra	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	108
P-52.	Investigation of Vacancy Formation Energy and Mechanical Properties in FeCrMnNi Alloy Vallinathan K , Gurpreet Kaur, Sharat Chandra	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	109
P-53.	Irradiation induced dissolution of precipitates in P91 steel – in-situ SEM investigation Vikas Singh Gahlot , P. Jegadeesan, V. D. Vijayanand, S. Amirthapandian	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	110
P-54.	Microstructural Characterization of carbide fuel elements of FBTR at linear heat rating of 400W/cm Bhabani Shankar Dash , K. G. Chaithanyaa, M. Padalakshmi, V. V. Jayaraj, C. Padmaprabu, V. Karthik & R. Divakar	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	111
P-55.	Studies on Fatigue Behavior of neutron irradiated SS316 using small specimens Aishwary Vardhan Pandey , V. Karthik, Ashish Kolhatkar, Divakar R.	Indira Gandhi Centre for Atomic Research, HBNI, Kalpakkam	112
P-56.	Fabrication of Components with Integrated Cladding for Harsh Environments through Casting Tumula Tirumala and Ajay Kumar	Indian Institute of Technology Tirupati (A.P.)	113
P-57.	Development of an experimental setup for low-temperature ion irradiations S. Chinnathambi	Indira Gandhi Centre for Atomic Research, Kalpakkam	114