

**List of accepted abstracts for Poster Presentation at the conference**  
**‘Advances in Quantum Materials using Synchrotron Techniques (AQMUST 2026)’**  
**Saha Institute of Nuclear Physics, Kolkata**

Poster No	Participants Name	Affiliation	Title of the Poster
P1	Rumal Singh	Shiv Nadar Institution, Noida	<b>“Kinetics and Structures of an Antimicrobial Peptide Assembly In and Around Phospholipid Monolayers at the Air–Water Interface.”</b>
P2	Amruta A	UGC-DAE CSR, Indore	<b>Engineering Magnetic Anisotropy in <math>\text{Co}_2\text{FeAl}</math> Thin Films Through Columnar growth on Rippled and Flat Substrates</b>
P3	Manish Verma	CeNS, Bangalore	<b>Probing Light-Driven Evolution of Active Sites in Photoelectrocatalysts via X-ray Absorption Spectroscopy</b>
P4	Suvashree Mukherjee	IISER, Kolkata	<b>Probing pressure-induced structural evolution and its impact on the optical behaviour of the vacancy-ordered halide double perovskite <math>\text{Rb}_2\text{TeBr}_6</math></b>
P5	Asish Kumar Mishra	IISER, Kolkata	<b>Pressure-induced ferromagnetic to antiferromagnetic phase transition in transition metal chalcogenide <math>\text{Cr}_3\text{Te}_4</math></b>
P6	Bhagyashree Giri	IISER, Kolkata	<b>Pressure induced Iso-structural phase transition in Tri-rutile oxide <math>\text{CaV}_2\text{O}_6</math></b>
P7	Rachana Sain	IIT (BHU), Varanasi	<b>Low-Temperature Synchrotron XRD Insights into Structure–Magnetism Coupling in Frustrated Pyrochlores</b>
P8	Mandeep Singh	University of Petroleum and Energy Studies, Dehradun	<b>Interface Induced Magnetic Anisotropy in <math>\text{Mo}/\text{CoFeB}/\text{Mo}</math> heterostructure using Depth Resolved X-ray Probes</b>
P9	Debjit Biswas	IISER, Kolkata	<b>Pressure Driven Exciton to Excimer Emission Toggling in Perylene Bisimide based H-aggregates</b>
P10	Abhirup Das	IIT, Kharagpur	<b>Concentration-induced phase separation of spin crossover nanoparticles in polymer thin film revealed by x-ray reflectivity (XRR)</b>
P11	Avantika Chauhan	University of Petroleum and Energy Studies, Dehradun	<b>A thermal stability and hydrogen interaction studies of Pd based alloy thin films using in-situ synchrotron radiation X-ray diffraction</b>
P12	Sunaina Singh	VECC, Kolkata	<b>Carbon Ion Engineering of Silicon Cathodes for Enhanced Photoelectrochemical Hydrogen Evolution</b>
P13	Preyash Kumar Bal	IIT (ISM), Dhanbad	<b>Graphene-enabled nanoplatform for cholesterol-related disease therapeutics: Insights from model biomembranes</b>
P14	Soumya Bhowmik	SINP, Kolkata	<b>Violation of the standard Slater-Pauling Rule in anti-Heusler alloy <math>\text{Al}_2\text{MnCu}</math></b>

P15	Gourav Sharma	BML Munjal University, Haryana	<b>Low Energy Ion-implantation-induced Structural &amp; Magnetic Modifications in Cr/SmCo<sub>5</sub>/Pt/Co<sub>20</sub>Fe<sub>60</sub>B<sub>20</sub> Multilayer Thin Films</b>
P16	Suprita Paul	IIT (ISM), Dhanbad	<b>Carbon-based nanoplatform for protein-level detection and probing lipid protein interactions</b>
P17	Anirban Saha	UGC-DAE CSR Kolkata	<b>Critical magnetic and structural investigation of doped and pure antiferromagnetic RGa<sub>2</sub> (R = Gd, Tb) alloy system</b>
P18	Sanchita Ghosh	UGC-DAE CSR Kolkata	<b>Enhanced Magnetocaloric Properties Driven by an Incomplete Martensitic Phase Transition in the Dual-Doped MnNiGe Alloy</b>
P19	Rosni Roy	UGC-DAE CSR Kolkata	<b>Structural Investigation and Anomalous Hall effect in Fe<sub>3-x</sub>Co<sub>x</sub>GaTe<sub>2</sub></b>
P20	Riya Roy	UGC-DAE CSR Kolkata	<b>Strategic use of dual doping for the modification of structural and magnetic behaviors of MnNiGe Alloys</b>
P21	Swapnadeep Goswami	Calcutta University	<b>Impact of structural and electrical transport parameters on the Thermoelectric performance of Bi<sub>2-x</sub>Sb<sub>x</sub>GeTe<sub>4</sub> samples</b>
P22	Dip Manna	SINP, Kolkata	<b>Deposition pressure assisted vacancy engineering of rf sputtered TiO<sub>2-x</sub> thin- lms in argon plasma leading to smaller optical band gap and room temperature resistive switching properties</b>
P23	Subrata Paul	SINP, Kolkata	<b>Magnetic domain imaging using magnetostriction: An electron microscopic approach</b>
P24	Niladri Das	IISc, Bangalore	<b>Probing the Structure of Confined Water in Ultra-Selective Polymer Membranes for Enhanced Desalination</b>
P25	Suparna Sahoo	SINP, Kolkata	<b>A Novel Phase in Quantum Hall Fluids: "Chiral Metal"</b>
P26	Suman Kumar Ghosh	SINP, Kolkata	<b>Beyond Free-Energy Minimization: Kinetic Control of Mixed Aggregates with Distinct Excitonic Coupling and Charge Transport in D-A Copolymer</b>
P27	Arka Patra	SINP, Kolkata	<b>Quenching of magnetic ordering in Quaternary Heusler NiFeVAl</b>
P28	Sachin Majee	SINP, Kolkata	<b>Cluster-driven exchange bias in an intercalated van der Waals antiferromagnet</b>
P29	Suswapna Mukherjee	SINP, Kolkata	<b>Study of nanoscale memory effect in n-bonded organic molecule and inorganic quantum dot hybrid system</b>
P30	Nirabindu Ganguly	SINP, Kolkata	<b>Interfacial Chemical Tuning of 2D BA<sub>2</sub>PbBr<sub>4</sub> in Aqueous Environment: Formation of Formate Species</b>
P31	Mofijul Sk	SINP, Kolkata	<b>Moderate Rashba Spin Splitting in Sb(111)/MoS<sub>2</sub> Heterostructure: A First-Principles DFT Study</b>
P32	Puja Das	SINP, Kolkata	<b>Growth and electronic structure evolution of Co/Si(100): A LEEM and LEED Study</b>

P33	Subhajit Mallik	SINP, Kolkata	<b>Imaging AFM domain in NiO using threshold Photo emission electron microscopy (PEEM)</b>
P34	Ayan Hatui	SINP, Kolkata	<b>LEED Investigation of Thickness and Thermal Annealing Effects in Co/MoS<sub>2</sub>(0001) Heterostructures</b>
P35	Suvayan Saha	SINP, Kolkata	<b>Role of Co/Mn Interaction in Developing Griffiths Phase with Reducing Particle Size in La<sub>2</sub>CoMnO<sub>6</sub></b>
P36	Pawan Kumar Ojha	SINP, Kolkata	<b>Ultrafast Phase Transition in Voltage-Triggered VO<sub>2</sub> Thin Film</b>
P37	Koushik Mondal	SINP, Kolkata	<b>Role of Oxygen Vacancies in Resistive Switching and Charge Trapping Behaviour of VO<sub>2-x</sub> Thin Films Deposited by RF Magnetron Sputtering</b>
P38	Souvik Jana	SINP, Kolkata	<b>Structure and charge transport of multimodal growth controlled Ph-BTBT-10 thin films</b>
P39	Mantu Modak	SINP, Kolkata	<b>Orthorhombic cotunnite phase in Er<sub>2</sub>Ti<sub>2</sub>O<sub>7</sub> under high-pressure</b>
P40	Shuvankar Das	SINP, Kolkata	<b>Growth and Phase Evolution of Sn on Ag(111): Transition from Metastable Ag<sub>2</sub>Sn to Bulk Ag<sub>3</sub>Sn</b>
P41	Aditi Paliwal	SINP, Kolkata	<b>Endotaxial growth of In<sub>2</sub>O<sub>3</sub>/Sapphire interface for Thin film transistor and phototransistor applications</b>
P42	Arpan Bhattacharyya	Shiv Nadar Institution, Noida	<b>Optimising Surfactant Driven Self-Assembly of Functionalized Nanoparticles in Air-Liquid and Liquid-Liquid Interface Using In-Situ SAXS and GISAXS and XRR Measurements</b>
P43	Ashok Das	Calcutta University	<b>Distortion Does the Magic: High-Performance Supercapacitors with Spin-Phonon Coupling</b>
P44	Sanat Kumar Adhikari	Calcutta University	<b>Role of Self-Doping in Shaping the Magneto-structural and Magnetocaloric Properties of MnNiGe Alloys</b>
P45	Suman Kalyan Pradhan	SINP	<b>Distinct origins of Colossal Magnetoresistance in layered Te-Doped Cr<sub>2</sub>Se<sub>3</sub></b>
P46	Tamaghna Maitra	SINP	<b>Structural and optical characterization of Kesterite Cu<sub>2</sub>ZnSnSe<sub>4</sub> single crystal grown via Bridgman technique</b>
P47	Gobind Mandal	SINP	<b>Enhanced Mobility of Edge-on Ordered Monolayer P<sub>3</sub>DDT-based Organic Field-Effect Transistors</b>