10th Conference of Bangladesh Crystallographic Association
(11 - 12 December, 2025)
Program Schedule

Time	Day-1	11 December, 2025 (Thursday)
09:00 – 9:30	**Kit Distribution among the Registered Participants**	
9:30 – 10:30	**Inauguration Ceremony**	
	Venue: Council Building, BUET	
	Welcome Address by *Conference Co-Chair* : Prof. Dr. Mohammed Abdul Basith *Head, Department of Physics, BUET* *Speech by* *Distinguished Guest* : Prof. Dr. Md. Saidur Rahman *Member, University Grants Commission of Bangladesh* *Distinguished Guest* : Prof. Dr. Muhammad Ibrahim *Former Professor, Department of Physics, University of Dhaka* *Conference Chair* : Prof. Dr. Altaf Hussain *President, Bangladesh Crystallographic Society* *Vote of Thanks by* *Conference Secretary* : Prof. Dr. Kazi Hanium Maria *General Secretary, Bangladesh Crystallographic Society*	
10:30 – 11:00	**Refreshment**	
11:00 – 12:30	**Keynote Lectures**	
	Venue: Council Building, BUET Chairs: Prof. Dr. Altaf Hussain Prof. Dr. Muhammad Qumrul Hassan	
11:00 – 11:30	**KL-01** **Title:** Perovskites and Beyond: A Scientific Journey toward Sustainable Solutions **Speaker:** *Prof. Dr. Mohammad Abdul Basith, Department of Physics, Bangladesh University of Engineering and Technology*	
11:30 – 12:00	**KL-02** **Title:** Why Do We Need New Contrast Agent for MRI/MRA Imaging? **Speaker:** *Dr. Engr. Sheikh Manzura Haque, Materials Science Division, Bangladesh Atomic Energy Commission*	
12:00 – 12:30	**KL-03** **Title:** Past, Present, and Future Aspects of the Thin-Film: Growth, Properties and Applications **Speaker:** *Prof. Dr Nizam Uddin, Vice Chancellor, Sunamgonj Science and Technology University*	
12:30 – 14:00	**Lunch and Prayer Break**	
14:00 – 15:30	**Technical Session-I** **Parallel Session IA: Organic Chemistry** **Venue: Prof. Dr. Sayed Ali Afzal Multipurpose Room, Dept. of Mathematics, BUET** Chairs: Prof. Dr. Md. Abu Bin Hasan Susan, Department of Chemistry, DU Prof. Dr. Iqbal Rouf Mamun, Department of Chemistry, DU	

	Invited Talk (20 min) Contributory Talk (10 min each)
14:00 – 14:20	**IL-C-01** **Title:** A Tale of Metal-Inorganic and Metal-Organic Frameworks in Electrocatalytic Oxygen Evolution **Speaker:** *Prof. Dr. Mominul Islam, Department of Chemistry, University of Dhaka*
14:20 – 14:30	OC-01 Homo-coupling of Aryl Halides through Electron-Transfer Oxidation of Organo-cuprate with 1,2-dichloroethane *P.D. Prantha, M. J. Rahman*
14:30 – 14:40	OC-02 Revealing Molecular Intersections between Type 2 Diabetes and Myocardial Infarction through Transcriptome Analysis and Common Therapies *Umme Samia Antu, Reaz Ahmmed, Md. Nurul Haque Mollah*
14:40 – 14:50	OC-03 Fabrication and Assessment of Eco-friendly Hybrid Composites of Polyvinylpyrrolidone (PVP)/ZnO/Jute Fiber: A New Approach *Md. Kamrul Hasan Dipu, Taslima Akter, Shahin Sultana*
14:50 – 15:00	OC-04 Discovery of Shared Pathogenetic Mechanisms Between Type-2 Diabetes and Alzheimer's Disease, and Therapeutic Agents *Reaz Ahmmed, Umme Samia Antu, Md. Nurul Haque Mollah*
15:00 – 15:10	OC-05 Crystallographic facet Engineering of ZnO Nanoparticles for Photocatalytic Organic Pollutant Degradation and Antibacterial activity *Priya Paul, Fataha Nur Robel, Newaz Mohammed Bahadur, Sumaya Tabassum, Subarna Sandhani Dey, Muhammad Shahriar Bashar, Nazmul Islam Tanvir, Samina Ahmed*, Md Sahadat Hossain*
15:10 – 15:20	OC-06 Design and Synthesis of Catalysts for the Lignin Valorization for the Application as Chemical Feedstocks in the Paints and Textile Industries *Habibur Rahman and Nur Uddin Ahamad*
15:20 – 15:30	OC-07 Experimental and Theoretical Insights into Polyacrylic Acid-Grafted Tamarind Kernel Powder Reinforced High-Density Polyethylene Biocomposites *Taslima Akter, Md. Kamrul Hasan Dipu, Shahin Sultana*
14:00 – 15:30	**Technical Session-I** **Parallel Session IB: Structural Physics-1** **Venue: Room no. OAB 104, Old Academic Building, BUET** Chairs: Prof. Dr. Aminul I. Talukder, Department of Physics, DU Dr. Abu Zafur Ziauddin Ahmed, Primeasia University
	Invited Talk (20 min) Contributory Talk (10 min each)
14:00 – 14:20	**IL-P-01** **Title:** Justification of Scaling Law for Atomic Diffusion of Fe based Liquid Transition Metal Alloys **Speaker:** *Prof. Dr. Ratan Chandra Gosh, Department of Physics, University of Dhaka*
14:20 – 14:30	SP-01 First-Principles Investigation of Half-Metallicity and Optoelectronic Properties in $FrTiX_3$ (X = Cl, Br, I) Perovskite. *Sandip Sutradhar, Alamgir Kabir*

14:30 – 14:40	SP-02 Atomistic Insights into Lattice Distortion, Grain Boundaries and Dislocation Effects on the Mechanical Properties in Multi Principal Element Alloys (MPEAs) *Sanzida Naznin Mim, Zihad Hossain, Most. Meftaul Zannati Kemi, Md. Riad Khan, Md Lokman Ali*
14:40 – 14:50	SP-03 Compositional Control and Property Modulation in Zn-Mg–Cr Spinel Ferrite Nanoparticles *Amit Chakroborty, Muhammad Samir Ullah and M. Mizanur Rahman*
14:50 – 15:00	SP-04 Atomic Dynamics of Liquid 3d Transition Metals: A Molecular Dynamics Exploration *Amitav Das and R. C. Gosh*
15:00 – 15:10	SP-05 First-Principles Study of Structural, Mechanical, Electronic, Thermal and Optical Properties of New Lead-Free Double Perovskites Rb_2LiSbX_6 (X = F, Cl, Br, I) for Industrial Applications *Md. Shoriful Islam, Antor Saha, Md. Atikur Rahman*
15:10 – 15:20	SP-06 Enhancement of Structural, Morphological, Optical, and Electrical Properties of CuO Thin Films with Cr Doping toward Gas Sensing Application *Dibakar Dhar, Md Ashraful Islam, Faria Chowdhury, M. S. Bashar, Kazi Md. Amjad Hussain, Kazi Hanium Maria*
15:20 – 15:30	SP-07 Pressure-Tuned Structural, Mechanical, Electronic, Optical, and Thermoelectric Properties of the Binary Intermetallic Compound Hf_5Si_3: Potential for High-Temperature Applications *Md. Emon Hassan, Md. Riad Khan, Md. Khairul Alam, Md. Lokman Ali*
14:00 – 16:00	**Technical Session-I** **Parallel Session IC: Energy-Related Materials-1** **Venue: Seminar Room, Department of Physics, BUET** Chairs: Prof. Dr. Samir Ullah, Department of Physics, BUET Prof. Dr. Mohammad Belal Hossen, Department of Physics, CUET
	Invited Talk (20 min) Contributory Talk (10 min each)
14:00 – 14:20	**IL-P-02** **Title:** Safety Enhancement of Auto Body Passengers Through Selective Phase Transformation of Steel **Speaker:** *Prof. Dr. Aminul Islam, Materials and Metallurgical Engineering, Bangladesh University of Engineering and Technology*
14:20 – 14:40	**IL-P-03** **Title:** Metal Oxide Semiconducting Thin Films for Functional Devices: Fabrication, Characterization, and Key Challenges **Speaker:** *Prof. Dr. Mehnaz Sharmin, Department of Physics, Bangladesh University of Engineering and Technology*
14:40 – 14:50	EM-01 Designing High-Performance Halide Double Perovskites X_2AgIrI_6 (X = Rb, Cs) for Energy Conversion Applications: A First-Principles Perspective *Apu Das and Muhammad Ruhul Amin*

14:50 – 15:00	EM-02 $ZnCo_2S_4$@NiCo-LDH Nanocomposite Electrode with Superior Electrochemical Properties for High-Performance Supercapacitors in Aqueous Electrolytes *Saifullaha, Probal Roy, and Muhammad Rakibul Islam*
15:00 – 15:10	EM-03 Study of the Morphological, Structural, and Optoelectrical properties of Aluminium (Al) and Copper (Cu) dual-doped CdO thin film *Aminul Islam Siyam, Syful Islam Nayeem, Shanjid Islam joy, Md. Abdus Sattar, Samia tabasuum, Md. Abdus Sabur*
15:10– 15:20	EM-04 Substrate-Dependent Crystallinity and Electrical Properties of Cu_3N Thin Films Grown by Reactive Radio Frequency (RF) Magnetron Sputtering *Majumder, K. Saito, Q. Guo, M. A. M. Patwary and T. Tanaka*
15:20– 15:30	EM-05 Lead-Free $CsSnCl_3$–MoS_2 Nanocomposites: Synergistic Enhancement of Moisture Stability and Energy Storage Performance *Tasnim Jahan and M. A. Basith*
15:30 – 15:40	EM-06 Designing the Future of Sustainable, High-Efficiency Photovoltaics with Eco-Friendly Chalcohalide $CuBiSeCl_2$ through Atomic-to-Device-Level Engineering Using DFT, SCAPS-1D, and Machine Learning *Zihad Hossain, Sanzida Naznin Mim, Snigdha Dev Saha Prapya, Md. Riad Khan, Md. Lokman Ali*
15:40 – 16:00	EM-07 Synthesis of Cellulose Nanocrystals from Tamarind Peel by Sulfuric Acid Hydrolysis: A Multiscale Property *Md. Ashikur Rahman, Md. Al-Amin, Md. Mahtabur Rahman, Mehedi Hasan, Md. Khorshed Alam, Mohammad Jellur Rahman*
15:30 – 17:00	**Poster Session IA: Chemistry and Others-1** (CP:1 – 25) **Venue: Department of Chemical Engineering Corridor**
	Poster Session IB: Physics and Material Science-1 (PP:1 – 23 & MSP:1 – 13) **Venue: Department of Physics Premises**
17:00 – 17:20	**Tea and Prayer Break**
17:20 – 18:20	**Technical Session-II** **Parallel Session IIA: Inorganic Chemistry-1** **Venue: Prof. Dr. Sayed Ali Afzal Multipurpose Room, Dept. of Mathematics, BUET** Chairs: Prof. Dr. Md. Aftab Ali Shaikh, Department of Chemistry, DU Dr. Israt Jahan, Department of Chemistry, BUET
	Invited Talk (20 min) Contributory Talk (10 min each)
17:20 – 17:40	**IL-C-02** **Title:** Reactivity Studies of Saccharin at a Diphosphine-Stabilized Low-Valent Triruthenium Center to Show a New, Simple but Elusive Coordination Mode of Saccharinate Ligand **Speaker:** *S. Rajbangshi, J. F. Raka, N. Akter, Md. M. Alam, V. N. Nesterov, S.E. Kabir, S. Ghosh* *Department of Chemistry, Jahangirnagar University*
17:40 – 17:50	IC-01 Synthesis, Structure, and Fluxionality of Stibine, Stibene, and Stibinidene Ligated Triruthenium Clusters

	Supported by Diphosphine Ligands *Mihir L. Bhowmik, Md. Abdullah Al Mamun, Shafikul Islam, Shariff E. Kabir*
17:50 – 18:00	IC-02 Study on The Composite Materials of $BiOI_{0.5}Br_{0.5}$ and CeO_2 *Md. Ashikur Rahman Ashik, Liton Bishwas, SK Faisal Ahmed, P. C. Barman, Pial Chowdhury, Partha Pratim Nath, Rashed Mahmud, Md. Nizam Uddin*
18:00 – 18:10	IC-03 A Novel Sorbitol-Functionalized Graphene Oxide–Iron Oxide Nanocomposite for Enhanced Doxycycline Removal from Aqueous Solutions *Afia Murshida Kusum, Md Sakil, Sabina Yasmin, Md. Safiqul Islam, and Md Humayun Kabir*
18:10 – 18:20	IC-04 Structural Insights into CeO_2 Nanoparticles and Ag–CeO_2 Nanocomposites Through Various XRD Models: Rapid Ultrasound-Assisted Synthesis and Photocatalytic Applications *Fariya Iqbal, Tasnimul Quader Tazim, Md. Abdus Samad Azad, Newaz Mohammed Bahadur, A F M Arifur Rahman*
17:20 – 18:30	**Technical Session-II** **Parallel Session IIB: Physical Chemistry-1** **Venue: Room no. OAB 104, Old Academic Building, BUET** Chairs: Prof. Dr. Muhammed Shah Miran, Department of Chemistry, DU Dr. Hasina Akhter Simol, CARS, DU
	Invited Talk (20 min) Contributory Talk (10 min each)
17:20 – 17:40	**IL-C-03** **Title:** Engineered Vanadium Cathodes for Next-Generation Aqueous Zn-Ion Batteries **Speaker:** *Dr. Chanchal Kumar Roy, Department of Chemistry, Bangladesh University of Engineering and Technology*
17:40 – 17:50	PC-01 Understanding the Zn^{2+}/H^+ Co-Insertion Mechanism in Reduced Graphene-Modified MnO_2 Cathodes for Aqueous Zinc Ion Batteries *Md. Rana Sheikh, Md. Amir Hamza, Maharun Negar Mojumder, Syfulla Mansur, Bipul Chandra Majumder, Abdul Kuddus, Chanchal Kumar Roy*
17:50 – 18:00	PC-02 Efficient Removal of Ciprofloxacin from Aqueous Solution using Zn–C Battery-derived Graphene Oxide Enhanced by Hydrogen Bonding, Electrostatic and π-π Interaction *Monira Akter Somapti, Nosheen Tabassum Dipannita, Md. Golam Azam, Md Humayun Kabir*, Sabina Yasmin*
18:00 – 18:10	PC-03 Biomass-Derived Hierarchically Porous Carbon for Water Desalination by Capacitive Deionization *Umme Sanima Chowdhury, Mohy Menul Islam and Md. Mominul Islam*
18:10 – 18:20	PC-04 Development of N/P/B-doped BiOBr-PCL Composite for Photocatalytic, Photovoltaic, Luminescence, and Antibacterial Activities *P. C. Barman, M.G. Zakaria, Pial Chowdhury, Partha Pratim Nath, M.N. Uddin*

18:20 – 18:30	PC-05 Magnetic Fe-Ni Oxides-Codoped MoS_2 Nanosheets as Electrocatalyst for Alkaline Oxygen Evolution *Saiful Islam, Md. Akib Hassan, Rowshan Yeasmin Snigdha, Tabassum Taspya, and Md. Mominul Islam*
17:20 – 18:30	**Technical Session-II** **Parallel Session IIC: Biomedical and Polymer Physics** **Venue: Seminar Room, Department of Physics, BUET** Chairs: Prof. Dr. Abu Sayem Karal, Department of Physics, BUET Prof. Dr. Md. Abdul Kadir, Department of Biomedical Physics & Technology, DU
	Invited Talk (20 min) Contributory Talk (10 min each)
17:20 – 17:40	**IL-P-04** **Title:** Polymeric Vehicles for Skin and Ophthalmologic Drug Delivery – Ongoing Efforts and Future Directions **Speaker:** *Prof. Dr. Tarik Arafat, Department of Biomedical Engineering, Bangladesh University of Engineering and Technology*
17:40 – 17:50	BPP-01 The Adsorption Effect of Mignitol onto $B_{12}N_{12}$ and $XB_{11}N_{12}$ (where X= Ga, Al, In) Nanocages: A Comparative DFT Study with COSMO Insights *Samiron Kumar Saha, Maliha Nishat, Rayhan Mostofa, Al-Amin, Md. Abul Hasnat*
17:50 – 18:00	BPP-02 Investigations of the Shape Change and Membrane Permeation of Vesicles Induced by Silver Nanoparticles *Zarin Tasnim Rakhy and Mohammad Abu Sayem Karal*
18:00 – 18:10	BPP-03 Preparation and Characterization of Carbon Nanotube and Molybdenum Disulfide Reinforced Nanocomposite Film of Cellulose Nanocrystals *Md. Al-Amin, Mehedi Hasan, Md. Mahtabur Rahman, Md. Khorshed Alam, Mohammad Jellur Rahman*
18:10 – 18:20	BPP-04 Annealing Induced Modifications of Structural, and Optical Parameters of PP(FD-BM) thin films for Optoelectronic Applications *Bablur Rahman, M. Hedayet Ullah, Ratul Roy, A. H. Bhuiyan, Mohammad Jellur Rahman*
18:20 – 18:30	BPP-05 Radiation Dose and Heavy Metal Levels in the Soil of the Sundarbans Ecotourism Center, Bangladesh: Implications for Human Health *Sadia Afrin Swarna, Goshtha Gopal Biswas, Mst Shafaly Khatun*
18:30 – 19:30	**AGM**
19:30 – 21:30	**Dinner**

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Program Schedule

Time	Day-2	12 December, 2025 (Friday)
09:15 – 10:35	**Technical Session-III** **Parallel Session IIIA: Inorganic Chemistry-2** **Venue: Prof. Dr. Sayed Ali Afzal Multipurpose Room, Dept. of Mathematics, BUET** Chairs: Prof. Dr. Al-Nakib Chowdhury, Department of Chemistry, BUET Dr. Foni Bushon Biswas, Department of Chemistry, CU	
	Invited Talk (20 min) Contributory Talk (10 min each)	
09:15 – 09:35	**IL-C-04** **Title:** Binuclear metal complexes of a novel Schiff base ligand: synthesis, characterization, antimicrobial and molecular docking with spiked protein of SARS-CoV-19 **Speaker:** *Umma Sumia Tohura and Mohammad Nasir Uddin, Department of Chemistry, University of Chittagong*	
09:35 – 09:45	IC-06 Structural Insights into Zinc Oxide-Silver Nanocomposite via different XRD models: Rapid Synthesis with Photocatalytic & Antibacterial Applications *Md. Abdus Samad Azad, Md. Shahadat Hossain, Shassatha Paul Saikat, Md. Rifat Hasan, Shukanta Bhowmik*	
09:45 –09:55	IC-07 Synthesis, Characterization and Applications of the Hybrid Composite Materials of MXene ($Ti_3C_2T_x$), g-C_3N_4 and CeO_2 *Liton Bishwas, SK Faisal Ahmed, Md. Ashikur Rahman Ashik, P. C. Barman, K. H. Tan, M A Zaed, Saidur Rahman, Md. Nizam Uddin*	
09:55 – 10:05	IC-08 Cyclic Metallophosphido-Ru Clusters Via an Unexpected Series of Metal-Mediated P–C and C–C Bond Rearrangements *Mihir L. Bhowmik, Graeme Hogarth, Shariff E. Kabir, Jagodish C. Sarker*	
10:05 – 10:15	IC-09 Synergistic Effects of Amine-Modified Graphene Oxide/ZnO–CeO_2 Nanocomposites in Photodegradation, Antibacterial, and Antibiotic Removal Performance *Md Swapon Hossain, Md Al-Imran, Mohammad Awlad Hossain, Md Elias*	
10:15– 10:25	IC-10 Synthesis, Antimicrobial Activity of Rhenium (IV) Dithiocarbamate Complexes, and Their Use as Single-Source Precursors to ReS_2 Nanomaterials *Md. Al-Imran, Md. Nayem Hossen, Md. Aminul Haque, Graeme Hogarth, Jagodish C. Sarker*	
10:25 – 10:35	IC-11 Controlled Deposition of Bioactive Nanomaterial in Nanocellulose Matrix for Engineering Hygienic Textiles *Fariha Sanjida and Nur Uddin Ahamad*	

09:15 – 10:45	**Technical Session-III** **Parallel Session IIIB: Functional Materials-1** **Venue: Room no. OAB 104, Old Academic Building, BUET** Chairs: Dr. Mohammad Mizanur Rahman, Institute of Energy Science, AERE Prof. Dr. Azizar Rahman, Department of Physics, BUET
	Invited Talk (20 min) Contributory Talk (10 min each)
09:15 – 09:35	**IL-P-05** **Title:** Tunable Magnetic Nanoparticles and Its Prospects **Speaker:** *Prof. Dr. Md. Samiul Islam Sarker, Department of Physics, University of Rajshahi*
09:35 – 09:45	FM-01 Effect of pH on Structural, Electromagnetic, and Optical Properties of Iron-Doped Titanium Dioxide Nanoparticles *Afifa Moon Rachona, Mohammad Mahbubur Rahman and Mohammad Mizanur Rahman*
09:45 – 09:55	FM-02 Synthesis and Investigation of the Structural, Morphological, and Optical Properties of Nanostructured Molybdenum-Doped Zinc Oxide Thin Films *Anindya Biswas, Parvin Sultana, Md. Kamruzzaman*
09:55 – 10:05	FM-03 High-Yield Production of Monolayer and Few-layer WS_2 and MoS_2 via Sn0 Atom Intercalation *A.M Shaomim Hassan Utsho, Kazi Hanium Maria*
10:05 – 10:15	FM-04 Structural, Electronic, Optical, and Thermoelectric properties of Fe-Doped $YMnO_3$: A First-principles Study *Kazi Mazba Kamal, K. M. Kamal, and A. Kabir*
10:15– 10:25	FM-05 Ethanol Sensing Performance of Cobalt-Doped Nickel Oxide Thin Films *Farhan Labib Fahim, Mehnaz Sharmin*
10:25 – 10:35	FM-06 Investigation of Physical and Photocatalytic Properties of $Ba_2(Pr,Ce)(Bi,Sb)O_6$ Double Perovskite Semiconductors Using First Principal Calculation *Md. Shahin Kabir, Md. Abdul Karim, Md. Jubayer Hossain, Dayal Chandra Roy*
10:35 – 10:45	FM-07 Tuning the Optical Properties of Phyto-Synthesized Ag/ZnO Nanocomposites for Enhanced Photocatalytic Activity *Md. Al Imran, Monika Paul, Bithi Paul*
09:15 – 10:45	**Technical Session-III** **Parallel Session IIIC: Structural Physics-2** **Venue: Seminar Room, Department of Physics, BUET** Chairs: Prof. Dr. Alamgir Kabir, Department of Physics, DU Prof. Dr. Md. Abdul Halim, Department of Materials Science & Engineering, RU
	Invited Talk (20 min) Contributory Talk (10 min each)
09:15 – 09:35	**IL-P-06** **Title:** Combining Machine Learning and Computational Chemistry for Equilibrium Conformation of Bimetallic Nanoparticles Under Gas Atmosphere **Speaker:** *Md. Khorshed Alam, R. Miah, I. J. Powshi, H. Takaba, University of Barishal*

09:35 – 09:45	SP-08 Gamma Radiation-Induced Modifications in Chemical Vapor Deposition-Grown Two-Dimensional Tungsten Diselenide *Mongur Hossain, Biao Qin, and Xidong Duan*
09:45 – 09:55	SP-09 Synthesis and Characterization of MoO_3 and CNTs Incorporated WS_2 Nanocomposites for Hybrid Supercapacitor Applications *Md. Faysual Kabir, Muhammad Rakibul Islam*
09:55 – 10:05	SP-10 Temperature Dependent Entropy of Liquid Noble Metals: A Simulation Based Study *Jahid Hasan, Amitav Das, A. Kabir and R.C. Gosh*
10:05 – 10:15	SP-11 Solvent-Mediated Dispersion of TMDs: A Systematic Exploration of Strategies, Challenges, and Opportunities *Rutaba Jania, Mehnaz Sharmin, Kazi Hanium Maria*
10:15– 10:25	SP-12 Pressure-Induced Tuning of Optoelectronic Properties in Lead-Free Halide Double perovskites Rb_2AB_6 (A = Te, Zr; B = Cl, Br): An AB Initio Investigation *Antor Saha, Md. Atikur Rahman, Shoriful Islam*
10:25 – 10:35	SP-13 Effects of Local Minima on Atomic Transport Properties of Liquids Zn and Bi *S. M. Karmakar, R.C. Gosh and Md Tareq Mahmud*
10:35 – 10:45	SP-14 Crystallographic and Magnetic Properties of Spinel-Type Mg-Ce-Zn Nano Particles *Muhammad Samir Ullah, Kaniz Fatema Laizo, Mahmudul Hasan, and Md. Rasel Shikder*
10:45 – 11:00	**Tea Break**
11:00 – 12:30	**Technical Session-IV** **Parallel Session IVA: Physical Chemistry-2** **Venue: Prof. Dr. Sayed Ali Afzal Multipurpose Room, Dept. of Mathematics, BUET** Chairs: Prof. Dr. Taposhi Ghosh Roy, Department of Chemistry, CU Dr. Chanchal Kumar Roy, Department of Chemistry, BUET
	Invited Talk (20 min) Contributory Talk (10 min each)
11:00 – 11:20	**IL-C-5** **Title:** Translating Molecular Design into Macroscopic Properties: Next-Generation Smart Polymeric Materials **Speaker:** *Prof. Abu Bin Imran, Dept. of Chemistry, Bangladesh University of Engineering and Technology*
11:20 – 11:30	PC-06 Nitrogen-doped Carbon Dots Derived from Carbohydrates as Fluorescent Probes for Biomedical Applications *Sumaiya Hasan Suma and Md. Abu Bin Hasan Susan*
11:30 – 11:40	PC-07 Bifunctional MOF-based Electrocatalysts for Medical-Grade Oxygen Generation *Rowshan Yeasmin Snigdha, Tabassum Taspya, and Md. Mominul Islam*

11:40 – 12:50	PC-08 Electrochemical Surface Activation of Glassy Carbon: A Cost-Effective Catalyst for Oxidation and Reduction Reactions *Munira Siddika, Mohammad A. Hasnat*
11:50 – 12:00	PC-09 Recent Advances on Carbon-Based Electrocatalyst for Energy-Related Oxygen Reduction Reaction in Alkaline Medium *Md. Saiful Islam, Md. Rayhanul Islam, Md. Shamim Ahmed, Md. Ashik Mahmud, Md. Jahid Hasan Tareq, Sraboni Akter, Promita Poroma Sarker, Sha Md. Shahan Shahriar, Md. Khairul Islam and Sayed M A Salam*
12:00 – 12:10	PC-10 Turning Lightweight Biomass into a High-Performance Channeled Carbon Mat Featuring Electrolyte-Dependent Supercapacitive Charge Storage *Md. Mehedi Hasan Foysal, Umme Sanima Chowdhury, Imran Hossain, and Md. Mominul Islam*
12:10 – 12:20	PC-11 CuO/TiO_2 Nanocomposites for Sunlight-Driven Photodegradation of Methylene Blue and Amoxicillin *Amena Jaman, Md. Sajib and Muhammed Shah Miran*
12:20 – 12:30	PC-12 Magnetic Graphene Oxide Modified with Carboxymethylcellulose for High-Performance Tetracycline Removal from Aqueous Media *Nosheen Tabassum Dipannita, Monira Akter Somapti, Sabina Yasmin, Md. Kamrul Hasan, and Md Humayun Kabir*
11:00 – 12:30	**Technical Session-IV** **Parallel Session IVB: Functional Materials-2** **Venue: Room no. OAB 104, Old Academic Building, BUET** Chairs: Prof. Dr. M. Mizanur Rahman, Department of Physics, DU Prof. Dr. Md. Samiul Islam Sarker, Department of Physics, RU
	Invited Talk (20 min) Contributory Talk (10 min each)
11:00 – 11:20	**IL-P-07** **Title:** ML-DFT-Experimental Approach: A Probable Survival Path in Resource Limited Sustainable Materials Science Research in Bangladesh **Speaker:** *Prof. Dr. Imtiaz Ahmed, Department of Electrical and Electronic Engineering, University of Dhaka*
11:20 – 11:30	FM-08 Morphological, Elastic, Magnetic and Optical Properties of Biopolymer-coated Gd-doped Mg-Cu-Zn Ferrite *Md Fahim, Zakia Sultana Tithi, Shadid Ibne Salim, Khandker Saadat Hossain and Mohammad Mizanur Rahman*
11:30 – 11:40	FM-09 Atomistic Simulation of Dislocation and Grain Boundary Effects on Mechanical Properties in High Entropy Alloy *Most. Meftaul Zannati Kemi, Sanzida Naznin Mim, Md. Lokman Ali*

11:40 – 11:50	FM-10 Hydrothermal Synthesis, Structural Characterizations and Physical Properties of Bi & Nb Based Piezoelectric *Md. Mukhlasur Rahman Biswas, Md. Tahmidur Rahman Sadd, Mirza H.K. Rubel*
11:50 – 12:00	FM-11 Investigation on the Structural, Magnetic, Electrical & Optical Properties of Gd Doped Mn Ferrite Nanoparticles Prepared by Hydrothermal Method *M.Sornali, N. Deb, I. M. Syed, S. M. Hoque*
12:00 – 12:10	FM-12 Green Approach for the Synthesis and Photocatalytic Assessment of Copper Nanoparticles Using Diospyros malabarica Leaf Extract *Abhi Saha, Mst. Jesmin Sultana, Fazle Rabbi Shakil Ahmed*
12:10 – 12:20	FM-13 Green Synthesis and Characterization of ZnO Nanoparticles from Moringa oleifera Leaf Extract for Enhanced Photocatalytic Dye Degradation *Antara Rahman, Fariha Chowdhury, I. N. Esha, Kazi Hanium Maria*
12:20 – 12:30	FM-14 Structural, Optical, and Photocatalytic Behavior of Sm and Dy Doped ZnO Nanoparticles Synthesized by a Modified Pechini (Polymeric Sol–Gel) Method *A. A. Retu, Fariha Chowdhury, I. N. Esha, Kazi Hanium Maria*
11:00 – 12:30	**Technical Session-IV** **Parallel Session IVC: Energy Related Materials-2** **Venue: Seminar Room, Department of Physics, BUET** Chairs: Prof. Dr. Ratan Chandra Gosh, Department of Physics, DU Prof. Dr. Parvin Sultana, Department of Physics, BUET
	Invited Talk (20 min) Contributory Talk (10 min each)
11:00 – 11:20	**IL-P-08** **Title:** GaN-based Single Photon Emitters for Quantum Photonic Applications **Speaker:** *Dr. Zunaid Baten, Electrical &Electronic Engineering, Bangladesh University of Engineering and Technology*
11:20 – 11:30	EM-08 Surface-Modified $ZnCo_2O_4/V_2O_5$ Heterostructures via Ion Exchange for Enhanced Energy Storage Performance *Mehedi Hasan, Md. Raihan Siddiki, Md. Abdullah Zubair and Muhammad Rakibul Islam*
11:30 – 11:40	EM-09 Effect of Cobalt Doping on the Properties of SnO_2 Thin Films Deposited by Ultrasonic Spray Pyrolysis Method *Md. Mohiuddin, Ishtiaque M. Syed, Rahima Nasrin*
11:40 – 11:50	EM-10 A Comprehensive DFT Study on Novel Double Perovskite Halides X_2CuPCl_6 (X = K, Rb) for optoelectronic and thermoelectric applications. *Sadman Sakib, Apu Das and Muhammad Ruhul Amin*
11:50 – 12:00	EM-11 Catalytic Co-Pyrolysis of Sugarcane Bagasse and waste LDPE Using Metal-Modified Clay for Renewable Biofuel Production *Tasdikul Hasan, Mohammed Mahmudur Rahman*

12:00 – 12:10	EM-12 Boosting Stability of Perovskite Solar Cells Using Direct Two-dimensional (2D) Perovskites Surface Passivation *S. Biswas, M. Kundar*
12:10 – 12:20	EM-13 Charge Transport Layer Engineering with WS_2/Cu_2Te (ETL/HTL) for Superior Photovoltaic Response in Rb_2LiGaI_6 Double Perovskite Solar Cell *Md. Riad Khan, Zihad Hossain, Md. Redwan Alam Hridoy, Sanzida Naznin Mim, Md. Lokman Ali*
12:20 – 12:30	EM-14 Effect of Holmium (Ho) Doping on the Structural, Dielectric, and Magnetic Properties of Nickel Ferrites ($NiFe_2O_4$) Grown by Hydrothermal Method *Tamanna Tabassum, Mohammad Kamal Hossain, Rabia Khatun Rita, Mumtahina Hasnat Surovy, Sheikh Manjura Hoque*
12:30 – 14:30	**Lunch and Prayer Break**
14:30 – 16:00	**Poster Session IIA: Chemistry and Others-2** (CP: 26 – 51) **Venue: Department of Chemical Engineering Corridor**
	Poster Session IIB: Physics and Material Science-2 (PP: 24 – 45 & MSP: 14 – 27) **Venue: Department of Physics Premises**
16:00 – 16:20	**Tea and Prayer Break**
16:20 – 17:30	**Technical Session-V** **Parallel Session VA: Physical Chemistry-3 and Others** **Venue: Prof. Dr. Sayed Ali Afzal Multipurpose Room, Dept. of Mathematics, BUET** Chairs: Prof. Dr. Md. Nazrul Islam, Department of Chemistry, BUET Prof. Dr. Subas Rajbangshi, Department of Chemistry, JU
	Invited Talk (20 min) Contributory Talk (10 min each)
16:20 – 16:40	**IL-C-06** **Title:** Computational Approach to Understand Properties of Alkali Metal Tungsten Bronze and Bronzoids **Speaker:** *Prof. Dr. Taposh Debnath, Theoretical and Computational Chemistry, University of Dhaka*
16:40 – 16:50	PC-13 Exfoliated Kaolinite-rGO Hybridization Unlocks Exceptional Pseudocapacitance via Controlled Ion Intercalation for Next-Generation Supercapacitors *Imran Hossain, Suhrid Sayantha Aniv, Muhammed Shah Miran, and Md. Mominul Islam*
16:50 – 17:00	PC-14 Utilization of Waste Leather as a Sustainable Electrode Material for Capacitive Deionization Technology *Md. Humayun Kabir, Umme Sanima Chowdhury, Md. Abu Bin Hasan Susan and Md. Mominul Islam*
17:00 – 17:10	PC-15 Ionic Liquid as Soft Template for Nucleation and Growth of ZnO Nanoparticles at Different pH Using Hydrothermal Method *Md. Nimur Rahman, Md. Abu Bin Hasan Susan*

17:10 – 17:20	PC-16 The Thiocyanate Gatekeeper: An In-Situ Adlayer on Gold for Direct and Enhanced Hydrogen Peroxide Electroreduction *Mohebul Ahsan, Md Fahamidul Islam, Md. Rezwan Miah, Mohammad A. Hasnat*
17:20 – 17:30	PC-17 Hydrostatic Pressure Effects on the Mechanical, Optoelectronic and Thermal Properties of *XM* (*X* = Ga, In; *M* = As, N): Insights for High-Performance Semiconductor Applications *M. Sabah, M. S. Islam, M. T. Ahmed, R. Parvin, M. A. Rahman, M. S. Ali*
16:20 – 18:00	**Technical Session-V** **Parallel Session VB: Functional Materials-3** **Venue: Room no. OAB 104, Old Academic Building, BUET** Chairs: Prof. Dr. Mohammad Jellur Rahman, Department of Physics, BUET Prof. Dr. Mehnaz Sharmin, Department of Physics, BUET
	Invited Talk (20 min) Contributory Talk (10 min each)
16:20 – 16:40	**IL-P-09** **Title:** Defect-Engineered Heterostructures for Optimized Charge Transfer and Elevated Capacitive Behavior in High-Performance Supercapacitor Devices **Speaker:** *Prof. Dr. Rakibul Islam, Department of Physics, Bangladesh University of Engineering and Technology*
16:40 – 17:00	**IL-P-10** **Title:** Unveiling Structural Insights: Advanced Crystallographic Investigation of Nanomaterials **Speaker:** *Prof. Dr. Mohammad Belal Hossen, Department of Physics, Chittagong University of Engineering and Technology*
17:00 – 17:10	FM-15 Low-Temperature Synthesis of Ti_2CT_x MXene with Tunable Structure and Superior Electrochemical Performance *Humaira Showkat, Mastura Imroz, Md. Ashraful Islam, Md. Sobuj Hossain, Tasnim Jahan, Ferdous Yasmeen, Md. Azizul Hoque, Mohasin Tarek and M. A. Basith*
17:10 – 17:20	FM-16 CNT and Co-Zn Ferrite-Incorporated Water Hyacinth Biochar for Chromium Removal from Tannery Wastewater *M. Hedayet Ullah, Mohammad Jellur Rahman*
17:20 – 17:30	FM-17 Structure-Driven Magnetic and Electrical Modulation in Ho–Eu Co-Doped Ni–Zn–Cu Ferrites *A.T. Sabah, Sheikh Manjura Hoque, Kazi Hanium Maria, Mohammad Khurshed Alam, Mohammad Shahriar Bashar, I.N. Esha*
17:30 – 17:40	FM-18 Role of Zn–Al Co-Doping in Tailoring the Structural Defects and Band Gap of CuO Thin Films *T.I. Prova, Mehnaz Sharmin, Kazi Hanium Maria, Mohammad Shahriar Bashar, I. N. Esha*
17:40 – 17:50	FM-19 Carbon Quantum Dots from Fish Gelatin: Optimization and Characterization for Fluorescent Probe Sensor *Mashkawat Quader Ohee, Mohammad Jellur Rahman, Kazi Hanium Maria, and Md. Abul Kalam*

17:50 – 18:00	FM-20 Structural and Mechanical Properties of Jute-derived Cellulose-reinforced Epoxy and PVA Composites Enhanced with Multi-Walled Carbon Nanotubes *Noor Alam Naim, Sabina Hussain*
18:00 – 19:00	**Closing and Award Giving** **Venue: Seminar Room, Dr. Jamilur Reza Choudhury Civil Engineering Building, BUET** *Speech by* : Prof. Dr. Altaf Hussain *Conference chair and BCA president* *Speech by* : Prof. Dr. Muhammad Qumrul Hassan *Vice President, Bangladesh Crystallographic Society* *Speech by* *Distinguished Guest* : Prof. Dr. Aparna Islam *Biotechnology Department, Brac University* *Speech by* : Prof. Dr. Mohammed Abdul Basith *Co-Chair of Conference* *Head, Department of Physics, BUET* *Speech by* : Prof. Dr. Jellur Rahman, Convener, Scientific Sub-Committee *Announcements of Awards* : Prof. Dr. Kazi Hanium Maria *General Secretary, Bangladesh Crystallographic Society*

List of Abstracts Selected for Poster Presentations

Subject Area: Chemistry

Sl. No.	Title and Authors
CP-01	Development of a High-Capacitance Flexible Supercapacitor with Enhanced Cycling Stability Based on Nanotubular Polyaniline-Modified Titanium Sheet *Othai Saha, Md Sanwar Hossain, Md Humayun Kabir, Sabina Yasmin*
CP-02	Phase Transformation in Poly(Vinylidene Fluoride) Using Porous Silica Fillers for Improved Dielectric Performance *Mst. Rumana Akter, Mst. Momotaz Begam, And Saika Ahmed*
CP-03	Sustainable, Green Synthesis of Carbon Quantum Dots in a Net-Zero Carbon Emissions Approach *Saiful Islam, Tasrina Rabia Choudhury and Mohammad Mainul Karim*
CP-04	Fabrication of Fe_2O_3/N, Fe Co-Doped Tio_2 Composite with Enhanced Activity for the Photocatalytic Degradation of Ciprofloxacin Under UV-Visible Light *Ayrin Akter Ety, Bappy Mia and Abdus Samad*
CP-05	Optoelectronic Properties of Boron-Nitrogen Co-Doped Benzodithiophene and Benzodiselenophene: A Density Functional Theory Study *Md. Enamul Haque, Joyanta K. Saha*
CP-06	Tio_2-Coated Zn-Bi Alloy as an Advanced Anode: Reduce Dendrite Formation and Enhance Cycling Stability in Zinc-Ion Batteries *Md. Sezan Ali, Juli Afrin Ananna, Md. Jahid Hasan, Sraboni Akter, Promita Poroma, And Md. Saiful Islam*

CP-07	Ionic Liquid-Derived Nitrogen-Enriched Carbon Materials as Efficient and Sustainable Counter Electrodes for Dye-Sensitized Solar Cells *M. R. Ali, M. H. Jihad, M. A. B. H. Susan*
CP-08	In Situ Hybrid Formation of Polyoxomolybdate and Cellulose-Derived Carbon for High-Performance Supercapacitor Electrodes *Salma, Md. Akib Hasan, Suhrid Sayantha Aniv, Md. Mehedi Hasan Foysal, Imran Hossain, And Md. Mominul Islam*
CP-09	Controlled Synthesis of Polyaniline in Nanoscale Using Microemulsion as a Medium *Mehnaj Tahnoon Pronomee, Md. Abu Bin Hasan Susan*
CP-10	Environmentally Benign Fast Degradation of Basic Brown-4 And Disperse Black-9 *Jannatun Naim Prithi and Md. Abdul Jabbar*
CP-11	Groundwater Manganese Contamination in Brahmanbaria District: Assessment and Efficient Removal Using a Cellulose-Derived Bio-Adsorbent *Md Sobur Hossain Molla, Jahed Hosen, Pradip Paul, Tapashi G. Roy, Debashis Palit, Shoji Yoshioka, Shafiqur Rahman, Kuo H. Wong, Ismail M. M. Rahman, Hiroshi Hasegawa, Foni B. Biswas*
CP-12	Electrocatalytic Oxygen Reduction at N-Doped Graphite Electrode in Acidic Solution *Runa Mazumder, Mohsina Tayeba, and Md. Mominul Islam*
CP-13	Synergistic Redox-Conductive Interfaces in Carbon Log Supported A-MnO_2 for High-Performance Supercapacitors *Azher Uddin Mullah, Imran Hossain, Suhrid Sayantha Aniv, Md. Mehedi Hasan Foysal, Md. Akib Hasan and Md. Mominul Islam*
CP-14	Functionalized Jute Fiber/Polyaniline Composites as Efficient Adsorbents for Dye-Contaminated Water Treatment *Farjana Rahman, Umme Sanima Chowdhury, Shadiqul Islam Sheikh, and Md. Mominul Islam*
CP-15	Indium Counter Cation-Stabilized Monophosphate Tungsten Bronzes as Robust Electrocatalysts for Efficient Acidic Oxygen Evolution *Chandon Kumar Saha, Akash Pandit, Taspya Tabassum, Rowshan Yeasmin Snigdha and Md. Mominul Islam*
CP-16	Cauliflower Waste-Derived Adsorbent for Efficient Removal of Alizarin Red S Dye from Water *Tonmoy Mojumder, Hosne Ara Begum and Md. Safiqul Islam*
CP-17	Preparation and Characterization of Graphene Decked MnO_2 Nanoparticles as High-Performance Cathode Materials for Aqueous Zn-Ion Battery *Habiba Jahan, Nusrat Tazeen Tonu, Ahammad Musa, Parbhej Ahamed, And Muhammad Abu Yousuf*
CP-18	Physicochemical and Thermodynamic Properties of Double Salt Protic Ionic Liquids Based on Diethyl methylammonium Ion for High Temperature Fuel Cell Electrolyte *Md. Arif Ullah, Jakia Sultana, and Muhammed Shah Miran*
CP-19	Investigation of the Conformational Dynamics and Interaction Mechanisms of Antimicrobial Peptide Temporin L With Helix Promoters

	Md. Saif Uddin, S M Abdullah Al Shawal Sami, Md Rakibul Hasan, Md. Jaish Uddin, Mohammad A. Halim
CP-20	Surfactant-Assisted Self-Assembly as a Platform for Photoelectrochemical Switching of Azobenzene *Sabikun Naher Sumi, Md. Akib Hasan, and Md. Abu Bin Hasan Susan*
CP-21	Efficient Removal of Lead (II) From Industrial Wastewater using Thiocarbohydrazide-Functionalized Cellulose Biosorbent *Jahed Hosena, Pradip Paul, Mrs. Mariam Islam, Tapashi G. Roy, Debashis Palita, Shoji, Yoshioka, Shafiqur Rahman, Kuo H. Wong, Ismail M. M. Rahman, Hiroshi Hasegawa, Foni B. Biswas*
CP-22	Jute-Derived Cellulose and ZnO-Cellulose Composite as Sustainable Adsorbents for Textile Dye Removal from Aqueous Media *Bishwajit Kumar Karmokar, Farhana Khanam Ferdousi, A. K. Mohiuddin and Md. Ahsan Habib*
CP-23	U_3O_8 Nanoparticles from Uranyl-Amino Acid Complexes: Morphology, Electrocatalyst for Oxygen Evolution Reaction, Oxidation, And Photocatalytic Properties *Sumiya Ahsan, Saiful Islam, R. Y. Snigdha, Hasina Akhter Simol, Md. Mominul Islam, Pradip K. Bakshi*
CP-24	Synthesis Of Magnetically Separable G-C_3N_4/Fe_3O_4/ZnO Ternary Nanocomposite for the Enhanced Photocatalytic Degradation of Antibiotics from Aqueous Media *Bappy Mia, Ayrin Akter Ety, Abdus Samad*
CP-25	Reactivity of Di(Pentamethylene) Thiuram Tetrasulfide (PMTT), a Vulcanization Accelerator, Towards Low and High Valent Molybdenum Centers *Popy Akter, Graeme Hogarth, Jagodish C. Sarker*
CP-26	Eco-Friendly Preparation of Copper Oxide Nanoparticles Utilizing Leaf Extract and Its Application As Fenton-Like Photocatalyst for Removal of Antibiotic from Aqueous Solution *Avoy Kanti Mondal, Md. Anamul Haque, Samina Ahmed and Mashrafi Bin Mobarak*
CP-27	Copper Diaryl-Dithiocarbamate Complexes as Single Source Precursors (SSPS) for Copper Sulfide Nanomaterials *Amrita Roy, Graeme Hogarth, Jagodish C. Sarker*
CP-28	Plant Extract-Mediated Synthesis of Nano-Crystallite TiO_2 for the Efficient Photocatalytic Degradation of Textile Effluent and Antibiotics *Md. Anayet Ullah, Fataha Nur Robel, Newaz Mohammed Bahadur, Muhammad Shahriar Bashar, Sanjida Khan, Md Farid Ahmed, Samina Ahmed and Md. Sahadat Hossain*
CP-29	Synthesis And Unveiling Crystal Structure-Driven Properties of a Novel Organic-Inorganic Hybrid Material *Mohammad Asiful Bahar, Md. Masud Rana, Belal Ahmed*
CP-30	A Novel Nonenzymatic Glucose Sensor Based on Gold Nanoparticle-Antimony Oxide Composite Modified Glassy Carbon Electrode *Jannatul Shahrin Ananna, Fatima Omar AL Qwairi, Mahbuba Aktary, Md. Abdul Aziz, A. J. Saleh Ahammad*
CP-31	Design, Synthesis and Crystal Structure of Two Novel Transition Metal Oxyfluoride Compounds

	Md. Masud Rana, Mohammad Asiful Bahar, Belal Ahmed
CP-32	Oxidative-Addition of Tetramethylthiuram Disulfide (Me_4TDS) And Monosulfide (Me_4TMS) at a Triosmium Center: Generation of Dithiocarbamate, Trithiocarbamate, Thiocarboxamide, and Amino-Carbyne Ligands *Md. Azizul Hakim, Graeme Hogarth, Shariff E. Kabir, Jagodish C. Sarker*
CP-33	Lignin Mediated Eco-Friendly Synthesis of Magnesium Oxide (MgO) Nanoparticles: Process Optimization Through Response Surface Methodology *Md. Naimur Rahman, Taslim Ur Rashid*
CP-34	Synthesis, Characterization and Antimicrobial Studies of Ruthenium(III) Complexes of an Isomeric Tetraazamacrocyclic Ligand (Tet-B) And X-Ray Crystallography of CIS-[Ni(Tet-B)(CH_3COO)](ClO_4) *A. Das, P. Paul, E. Panna, Md. T. Islam, F. B. Biswas, And T. G. Roy*
CP-35	Sustainable Synthesis of Cow-Dung-Derived Activated Carbon as a Functional Material for Efficient Ferric Ion Adsorption *Zahid Hasan Pilot, Sayed M A Salam, Aneek Krishna Karmakar, Md. Khairul Islam, Md. Saiful Islam and Sha Md. Shahan Shahriar*
CP-36	A New Azo-Schiff Base and Its Co(II), Ni(II), and Cu(II) Complexes: Synthesis, Characterization, DFT Analysis, Chemosensing of Uranyl Ion, And Biological Activities *Mehedi Hasan, Saiful Islam, Shyama Prosad Moulick, Md. Abdullah Al Zayed, Pradip K. Bakshi*
CP-37	A Novel Nonenzymatic Glucose Sensor Based on Gold Nanoparticle-Antimony Oxide Composite Modified Glassy Carbon Electrode *Jannatul Shahrin Ananna, Fatima Omar Al Qwairi, Mahbuba Aktary, Md. Abdul Aziz, A. J. Saleh Ahammad*
CP-38	Fabrication of Fe(II)-Co(II)-Ni(II)-Based Heterometallo Supramolecular Polymer for Electrochemical Sensing of 4-Nitrophenol *Najia Tahsin Kumkum, Sheikh Jakia Nur Oishee, Rakib Khan, Abdul Awal, Md. Delwar Hossain and A. J. Saleh Ahammad*
CP-39	Effect of Methyl Ethyl Ketone And N-Methyl Pyrrolidone Solvents in the Purification of Waste Engine Oil by Solvent Extraction, Flocculation, and Adsorption Techniques *Shaida Kabir Jaren, Md. Mahmudur Rahman*
CP-40	Nickel(II) Complexes of Tetrazamacrocycle: Synthesis, Characterization, and Antibacterial Investigations *T. R. Majumder, P. Paul, A. Baidya, K. Hossain, Md. A. Rahman, B. K. Dey and T. G. Roy*
CP-41	In Silico Screening of Neem-Derived Phytochemicals as Potential Inhibitors of Nipah Virus Attachment Glycoprotein *Toukir Biswas, Nur Mohamad, Md. Ahad Ali*
CP-42	Desloratadine Inhibits the Growth of Liver Cancer Cells (SMMC-7721) By Inducing Apoptosis Through a Caspase-Dependent Pathway *Syed Rashel Kabir, Mohammad Taufiq Alam*
CP-43	A Synergistic Experimental and DFT Investigation of Melamine-Modified Waterborne Polyurethane Coatings *Urbana Kawsar Mitali, Mohammad Mizanur Rahman, Joyanta Kumar Saha*

CP-44	Unravelling the Regulatory Network and Evolutionary Aspects of the ARID Gene Family of Arabidopsis Through In- Silico Analyses *Pinki Debnath, Md. Redwan Ahmed, Nahida Akter, Rounak Jahan Raka*
CP-45	Synthesis, Characterization with Stability Insights and Computational Study of a Schiff Base (Sal-OAPH$_2$) And Its Cu(II) Complex *Johan Hossain Sakib, Elias Ahmed, Md. Ali Hasan Misbah Uddin, Md. Qamrul Ehsan, Md. Ershad Halim*
CP-46	Cellulose Acetate-Stabilized Pickering Emulsions: A Novel Platform for Active Pesticide Delivery *Md Rakib Hasan, Md. Naimur Rahman, Saiful Islam and Khandoker Samaher Salem*
CP-47	Poly (Acrylomido-2-Methyl-1-Propane Sulphonic Acid) Hydrogel for the Sorption of Crystal Violet Dye from Aqueous Solution: Kinetics and Thermodynamics Studies *Md. Towsif Ur Rahman, Md. Anamul Haque, Sakib Hasan, Joyanta K. Saha, Mahmudur Rahman and Nafees Ahmed*
CP-48	Bis-Cyanoethyl Derivative (L_{CX}) and Its Cadmium(II) Complexes: Synthesis, Characterization and Antibacterial Studies. X-Ray Crystallographic Studies Of L_{CX}. *S. Rabi, A. Chakraborty, S. K. D. Gupta, D. Palit and T. G. Roy*
CP-49	Morphology, Thermal Kinetics, Luminescence, Photocatalytic, Adsorption, and In-Silico DFT Studies of Uranyl (VI) Complexes of Aspartic Acid And *N*-Donor Ligands *S M Mahfuzul Islam, Saiful Islam, Pradip K. Bakshi*
CP-50	Synthesis, Characterization, and Application of the Composite Material Cebioibr With G-C_3N_4 To Enhance Photocatalytic Activity *SK Faisal Ahmed, Md. Ashikur Rahman Ashik, Liton Bishwas, P. C. Barman, Pial Chowdhury, Partha Pratim Nath, Rashed Mahmud, Md. Nizam Uddin*
CP-51	Synthesis, Characterisation, DFT Studies, Microbial Activity of Novel Palladium Dithiocarbamates and use as Single Source Precursors of Palladium Sulfide *Md. Atikul Islam, Md. Nayem Hossen, Tannith-Jade Cole, David Pugh, Md. Aminul Haque, Graeme Hogarth, Jagodish C. Sarker*
	Subject Area: Physics
Sl. No.	**Title and Authors**
PP-01	Strain Engineering and Hybrid Functional Insights into III–V Compounds and the 2D InSe Monolayer for Advanced Electronic Applications *M. T. Ahmed, M. Sabah, M. S. Islam, R. Parvin, S.H. Naqib, M. S. Ali*
PP-02	Strain-Tunable Properties of $GaGeSe_3$ and $GaGeTe_3$ Monolayers: A DFT-Based Study *M.R. Shanta, M. T. Ahmed, M. Sabah, M. S. Islam, R. Parvin, M. S. Ali*
PP-03	Crystallographic And Paramagnetic Behavior of Nanocrystalline Mg-Cr-Zn Ferrites *Rizwana Afrin, Kaniz Fatema Laizo and Muhammad Samir Ullah*
PP-04	MoO_3 Incorporated $CoFe_2O_4$ Nanocomposites: Structural, Magnetic and Electrochemical Properties for Energy Storage Application *Mahmudul Hasan, Kaniz Fatema Laizo and Muhammad Samir Ullah*

PP-05	Influence of The Sintering Aids on The Structural and Magnetic properties of Li-Cu-Mg-Zn Ferrites *Kaniz Fatema Laizo, Md. Rasel Shikder, Mahmudul Hasan, Md. Ataul Haque, Suzam Gifary and Muhammad Samir Ullah*
PP-06	Impact of Dy Substitution on La-Ba Perovskite Manganites for Magnetocaloric Applications *Md. Ataul Haque, Rimi Rashid, Md. Rasel Shikdar and Muhammad Samir Ullah*
PP-07	Structural and Magnetocaloric Properties of La-Pb-Ba Perovskite Manganites: Exploring the Griffiths Phase Evolution *Mehjabin Afroz Neha, Muhammad Samir Ullah and K. Saadat Hossain*
PP-08	Optimization of SnO_2 Electron Transport Layers for Perovskite Solar Cells via Chemical Bath Deposition: A Low-Temperature Approach *Sadia Homyra, Md Ariful Islam, Ayesha Wasima Rashid, Shamima Ahmed Shetu, Md Anowar Hosen, Md Shahiduzzaman,, Aminul I. Talukder, Md Akhtaruzzaman, Ishtiaque M Sayed*
PP-09	Effects of Temperature on Electroporation in Lipid Membranes using Molecular Dynamics Simulations *Anika Akther and Mohammad Abu Sayem Karal*
PP-10	Effect of Sintering Temperature on the Structural and Functional Properties of $ZnO/NiFe_2O_4$ Binary Nanocomposites Synthesized by a Controlled Co- precipitation Method *Tanvir Hossain Fahim, Mashkawat Quader Ohee, M. S. Bashar, Iffat Nur Esha, Kazi Hanium Maria*
PP-11	Comprehensive First-Principles Analysis of the Structural, Electronic, Optical, and Mechanical Properties of Ti_3AC_2 (A = Al, Si, Ge) MAX Phases *Md. Hasnat Shahriar Shanto, Md. Riad Khan, Irfan Bin Habibi, Md. Lokman Ali, Md. Khairul Alam*
PP-12	Exploring Interstitial Hydrogenation as a Strategy for Enhanced Photovoltaic and Thermoelectric Performance in Double Perovskite $Cs_2AgSbBr_6$ *Prarthona Shaha, Md. Riad Khan, Md. Emon Hassan, Md. Lokman Ali*
PP-13	Pressure-Induced Structural and Electronic Modulation of $LiCdH_3$ Perovskite Hydride for Energy Storage Applications *Mst Israt Jahan, Md. Emon Hassan, Md. Riad Khan, Md. Khairul Alom, Md. Lokman Ali*
PP-14	First-Principles investigation of Pressure-induced Structural and Superconducting Transitions in LaO *Md. Mazharul Islam, Md. Hasnat Shahriar Shanto, Irfan Bin Habibi, Md. Riad Khan, Md. Hafijur Rahman, Md. Lokman Ali*
PP-15	Exploring Charge Transport Layer Effects on Lead-Free $NaSiCl_3$ Perovskite Solar Cells Using SCAPS-1D Simulation *Md. Redwan Alam Hridoy, Zihad Hossain, Md. Riad Khan, Md. Lokman Ali*

PP-16	Structural, Optical, and Electrical Properties of Pristine and Cr-Doped CuO Thin Films: A Synergistic Experimental and DFT+U Analysis *Md Ashraful Islam, Dibakar Dhar, I. N. Esha, Faria Chowdhury, M. S. Bashar, Shirin Akter Jahan, Kazi Hanium Maria*
PP-17	Structural, Optical, and Transport Properties of Fe-doped Manganese Dioxide Thin Films *Mushfikatul Zannah, Taposhi Rabeya Binta Rashed Anika, Nawshin Tithi, Farhan Labib Fahim, Mehnaz Sharmin*
PP-18	Structural, Magnetic, and Optical Properties of Octadecylalkylammonium Intercalated Montmorillonite Incorporated Calcium Ferrite Nanocomposites *Sha Mohammed Sharfuddin, Md. Hedayet Ullah, Parimal Bala, Mohammad Jellur Rahman*
PP-19	Pressure Induced Functional Potential of Mn_3ZnC Anti-Perovskite for Technological Applications *Irfan Bin Habibi, Md. Riad Khan, Md. Emon Hassan, Md. Lokman Ali*
PP-20	Computational Study of Mn^{4+} -doped Luminescent Host K_2SiF_6 for Applications in White Light-Emitting Diodes *A.R. Alif, R.K. Pramanik and M.S. Islam*
PP-21	Structural, Optoelectronic, Mechanical, and Thermodynamic Properties of $AgMgX_3$ (X= Cl, Br): A First Principles Study *Md. Jobayer Hassan, Md. Ashikur Rahman, Md. Meskat Ali, and Md. Alamgir Badsha*
PP-22	Tuning Interfacial Charge Dynamics and Synergistic Electrochemical Behavior of $ZnMoO_4@V_2O_5$ Heterostructure for Advanced Energy Storage device *Md. Rifat Bhuiyan, Mst. Rowson Aktar and Muhammad Rakibul Islam*
PP-23	Exploring the Structural, Optical, Electronic, and Photocatalytic Behavior of Ba_2XZO_6 (X = La, Y; Z = Bi, Sb) Double Perovskite Semiconductors: A DFT Investigation *Md. Abdul Karim, Md. Jubayer Hossain, Md. Shahin Kabir, Dayal Chandra Roy*
PP-24	Theoretical Insights on Structural, Electronic, and Photocatalytic Properties of Ba_2CeMO_6(M = Bi, Sb) Double Perovskite Oxide Semiconductors *Md. Jubayer Hossain, Md. Abdul Karim, Md. Shahin Kabir, Dayal Chandra Roy*
PP-25	Enhanced Visible-Light-Driven Photocatalytic Degradation of Ciprofloxacin Antibiotic Achieved by ZnV_2O_4@NiCo-LDH Nanocomposite through Synergistic Charge Separation *Mst. Rowson Aktar, Md. Rifat Bhuiyan, and Muhammad Rakibul Islam*
PP-26	Influence of Sintering Temperature on Structural and Electromagnetic Properties of Al^{3+} Substituted Ni-Cu Ferrites Prepared Through Sol-Gel Method. *Md. Mahfuzur Rahman, Md Shajjad Khan Faisal, Md Turab Haque Payel*
PP-27	**Withdrawn** Cu_6AgBiI_{10} Solar Cells: Optimizing Hole Transport Layers for Enhanced Efficiency *Kazi Najrul Islam, Sumaya Sultana, Most. Samira Khatun, Md. Arif Ul Islam and T.Soga*
PP-28	Molecular Dynamics Simulation of Edge Dislocation and Grain Boundary Effects on the Mechanical Properties of FeNiCoCrAl High Entropy Alloy *Jenifar Yasmin, Sanzida Naznin Mim, Most. Meftaul Zannati Kemi, Md. Khairul Alam, Md. Lokman Ali*

PP-29	**Withdrawn** Linking Experimentation and Simulation: Unlocking the Efficiency of Ag_3BiI_6 Solar Cells Through Organic HTL Engineering *Sumaya Sultana, Most. Samira Khatun, Kazi Najrul Islam, Md. Arif Ul Islam and T. Soga*
PP-30	Pressure-Driven Bandgap Modulation in Lead-Free Double Perovskite $Cs_2AgSbCl_6$: Insights from TB-mBJ Based First-Principles Study *Mohammad Abdur Rashid, Md. Borhanul Asfia, Sahadat Jaman,*
PP-31	Exploring the Superconducting Properties of Al_2CN Using First- Principles Calculations *Tanu Saha and Alamgir Kabir*
PP-32	Green Synthesis of Silver Nanoparticle Loaded Fish Gelatin/PVA Nanocomposite Films for Biomedical Applications *Md Mhamudul Hasan Munna, Md Nabil Hassan, Md. Wahadoszamen, Mohammad Jellur Rahman and Md Abul Kalam*
PP-33	Spray-Pyrolyzed Cr-Doped $CoFe_2O_4$ Thin Films: A Promising Material for NH_3 Gas Sensing Applications *S. Karimunnesa, Kazi Hanium Maria, Rimi Rashid, Sheikh Manjura Hoque*
PP-34	Cu-modified $B_{12}N_{12}$ Nanocages as Efficient Carriers for Allopurinol Drug Delivery: Insights from DFT *Hasna H. Nobi, Saidul I. Sayeed, Mohammad A. Matin, Md. Abdur Rahman, Joyanta K. Saha, Joonkyung Jangd*
PP-35	Effects of Surface Charge Density on the Silver Nanoparticles Induced Pore Formation in Giant Unilamellar Vesicles *Subrina Momotaz Momo and Mohammad Abu Sayem Karal*
PP-36	First-Principles Investigation of a Ferromagnetic Half-Metal $NaEuH_3$ for Multifunctional Optical, Spintronic, and Hydrogen Storage Applications *Basanti Banik, Md. Rony Hossain, Mst. Shamima Khanom, Farid Ahmed*
PP-37	Insights into the Structural, Mechanical, Electronic, and Optical Properties of Mg_2CrZrO_6 via Spin-Polarized DFT *Md. Rahim Biswas, Basanti Banik, Mst. Shamima Khanom, Md. Rony Hossain, Farid Ahmed*
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MSP-02	Preparation and Characterization of TiO_2 -GO Nanocomposite by Varying Reaction Conditions *Md. Jahid Hassan, Ishtiaque M. Syed, Rumana A. Jahan*
MSP-03	Hydrothermally Derived Cu–Zn Co-Doped SnS_2 Layered Nanoplates: Examination of Their Controlled Structural, Morphological, Optical, Photo-response, and Photocatalytic Activities *Sheikh Md Alif Nur Nahid, I. N. Esha, Faria Chowdhury, Kazi Hanium Maria*
MSP-04	Investigation of the Optoelectronic Properties of Nanostructured CdO Thin Films Through (Ni:Co) Dual-Doping Strategy by Spray Pyrolysis. *Md. Rubel Ali, Shanjid Islam joy, Md. Syful Islam Nayeem, Aminul Islam Siyam, Md. Kamruzzaman, Samia Tabassum, Md. Abdus Sattar*
MSP-05	Investigation into the Consequences of (Ag: Al) Co-doping on Structural, Morphological and Optoelectrical Properties of CdO Thin Films Using Spray Pyrolysis Route. *Syful Islam Nayeem, Aminul Islam Siyam, Shanjid Islam joy, Md. Abdus Sattar, Md. Saifur Rahman, Md. Abdus Sabur*
MSP-06	First Principles Calculations on Magnesium-based Ternary Pnictide $MgSiP_2$ for Applications in Optoelectronic Devices *Antim Chakma, Mahmudun Nabi, Md. Saiful Islam*
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MSP-10	Optical and Electronic Properties of Ferromagnetic $SrV\beta_3$ (β = O, S) for High-Density Optical Data Storage: A DFT Insights *S. Sultana, M. Bayjid Mia, M. E. Haque and M. M. Rahaman*
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