

National Conference on Physics – 2021

06-07 August 2021

PROGRAMME**6 August 2021 (Friday)****Inaugural Session : 09.00 – 10.00****Venue : Zoom online Platform**

: Welcome Address: Prof. G. M. Bhuiyan, Vice-President, BPS

: Address by the Special Guest: Prof. Arun Kumar Basak, Professor Emeritus, RU

: Address by the Chief Guest: Prof. M. Shamsheer Ali, Professor Emeritus, SEU

: Address by the Chairperson: Prof. Mesbahuddin Ahmed, President, BPS

: Vote of Thanks: Dr. Md. Nazrul Islam Khan, General Secretary, BPS

Technical Sessions Programme**Session (I): Theoretical and Computational Physics-I****Venue: Zoom online Platform****Time: 10.05 - 11.15**

Chair : Prof. Saleh Hasan Naqib

Co-Chair : Dr. Alamgir Kabir

Invited Talk**[20 minutes]****IT- I: Origin of segregation in liquid metallic binary alloys: G. M. Bhuiyan****Contributory Papers****[10 minutes per paper]****TCP-01:** Collective dynamic properties of liquid $\text{Na}_x\text{K}_{1-x}$ binary alloys: An orbital free molecular dynamic simulation study: **M. Alamgir Hossain, A. Z. Ziauddin Ahmed, Mohammad Riazuddin Molla, G. M. Bhuiyan****TCP-02:** DFT based prediction of pressure dependent structural, elastic, electronic, and optical properties of superconducting NaC_6 : **Nazmun Sadat Khan, B. Rahman Rano, Ishtiaque M. Syed, R.S. Islam, S. H. Naqib****TCP-03:** Electronic structure and optical properties of cubic BaTiO_3 (BTO): A DFT study: **Arpon Chakraborty, M. N. H. Liton, M. S. I. Sarker, M. M. Rahman, M. K. R. Khan****TCP-04:** Structural, magnetic, electronic and optical properties of $\text{Nd}_2\text{FeCrO}_6$ double perovskite: A first-principles study: **M. D. I. Bhuyan, Rana Hossainnd, M. A. Basith**

Session (II): Materials Science-I**Venue: Zoom online Platform****Time: 11.20 – 12.40**

Chair : Prof. S. S. Sikder
 Co-Chair : Prof. Md. Belal Hossen

Invited Talk**[20 minutes]**

IT-II: Perovskite type metal halides for photovoltaics and optoelectronic devices: **A. K. M. Akther Hossain**

Contributory Papers**[10 minutes per paper]**

- MS-01:** Fabrication of spray pyrolysed Al/ZnO: Cd heterostructure: Effect of Cd on structure, current-voltage and capacitance-voltage characteristics: **M. A. Sattar, M. A. Rahman, M. A. Halim, M. Mozibur Rahman, M. K. R. Khan**
- MS-02:** Structural characterization of tensile strained $\text{Si}_{1-x}\text{Ge}_x$ grown on various Ge substrates: **Md. Mahfuz Alam Tanbhir Hasan, Youya Wagatsuma, Kazuya Okada, Michihiro Yamada, Kohei Hamaya, and Kentarou Sawano**
- MS-03:** Influence of manganese substitution on the structural and magnetic properties of nanocrystalline $\text{Li}_{0.2}\text{Zn}_{0.6-x}\text{Mn}_x\text{Fe}_{2.2}\text{O}_4$: **Benjir Ahmed, M. N. I. Khan, and A.K.M. Akther Hossain**
- MS-04:** Study on hydrogen isotopes behavior in rare-earth oxides: **M. Khalid Hossain, K. Hashizume, S. Jo, K. Kawaguchi, Y. Hatano**
- MS-05:** Multiferroic orders in Co-doped SrTiO_3 : **A. K. M. Sarwar Hossain Faysal, Shahrar Ahmed, M. N. I. Khan, M. A. Basith, Muhammad Shahriar Bashar, H. N. Das, S. I. Liba, Tarique Hasan and Imtiaz Ahmed**
- MS-06:** Complex permeability and dielectric property of Li-Cu-Mg-Zn ferrites: **M. Atikul Islam, M. Samir Ullah, Sm. Rubayatul Islam, M. A. Islam, F. A. Khan, Faruque Ahammed, F. Afrose Sonia and M. Mizanur Rahman**

Lunch and Prayer Break : 12.40 – 14.30

Session (III): Medical Physics**Venue: Zoom online Platform****Time: 14.30 – 15.55**

Chair : Prof. Dr. Kamila Afroj Kadir
 Co-Chair : Dr. Prof. Abdul Hannan

Invited Talk**[20 minutes]**

IT-III: Filling a void in the century old cable theory of neural conduction, **K Siddique-e Rabbani**

Contributory Papers**[10 minutes per paper]**

- MP-01:** Effects of electroporation on membrane electro-behavior in the cell like giant vesicles: **Md. Kabir Ahamed and Mohammad Abu Sayem Karal**
- MP-02:** Extraction of 3D ^{13}N distribution in inhomogeneous phantom by spectral analysis technique

- for proton therapy verification: **M. Rafiqul Islam, Masayasu Miyake, Mahabubur Rahman, Shigeki Ito, Shinichi Gotoh, Taiga Yamaya, Hiroshi Watabe**
- MP-03:** Investigation of molecular transport through a peptide induced nanopore and its size effects in the membrane of giant unilamellar vesicle using COMSOL: **T. Rahman, M. S. Ishtiaque, M. I. Hossain, M.A.S. Karal, Md. K. Alam**
- MP-04:** The molecular interactions of inhibitors with glucose transporter and glutaminase: In silico approach: **Suhrid Saha Pranta and Md Enamul Hoque**
- MP-05:** Effects of cholesterol on the anionic magnetite nanoparticles-induced deformation and poration of giant lipid vesicles: **Salma Akter, Sharif Hasan, and Mohammad Abu Sayem Karal**
- MP-06:** A new purification technique to obtain specific size distribution of giant lipid vesicles using dual filtration: **Tawfika Nasrin and Mohammad Abu Sayem Karal**

Session (IV): Reactor and Nuclear Physics

Venue: Zoom online Platform

Time: 16.00 – 17.20

Chair : Prof. Nure Alam Abdullah
Co-Chair : Dr. Md. Amirul Islam

Invited Talk [20+20 minutes]

- IT-IV-A:**, **Arun Kumar Basak**
IT-IV-B: VVER 1200 safety- protection against station blackout, **S. I. Bhuiyan**

Contributory Papers [10 minutes per paper]

- RNP-01:** Assessment of dose distribution of radionuclides due to a postulated accident of triga research reactor in Bangladesh: **M. Ajijul Hoq, Md. Abu Khaer, Mohammed Tareque Chowdhury, M. Mizanur Rahman**
- RNP-02:** Intranuclear cascade model for deuteron-induced reactions over a wide range of targets: **M. J. Kobra, Y. Uozumi**
- RNP-03:** Experimental cross section measurements for nuclear reactor technology: $^{55}\text{Mn}(n,\gamma)^{56}\text{Mn}$ reaction at two new thermal energies: **Md. Mustafa Zaved, Mohammad Amirul Islam**

Session (V): Nanomaterials

Venue: Zoom online Platform

Time: 17.25 – 18.55

Chair : Dr A K M Abdul Hakim
Co-Chair : Dr. Kazi Haniyia Maria

Contributory Papers [10 minutes per paper]

- NM-01:** Fast magnetization reversal of a magnetic nanoparticle driven by a chirp microwave field pulse at finite temperature: **M.T. Islam, M. A. J. Pikul, M. A. S. Akanda, and X. S. Wang**
- NM-02:** Tunable Exchange bias in $\text{Nd}_2\text{FeCrO}_6$ double perovskite: **Fahmida Sharmin, Ferdous Ara, M.D.I Bhuyan, Subrata Das, Tetsu Sato, Tadahiyo Komeda, M. A. Basith**
- NM-03:** Structural and magnetic characteristic exploration of trivalent Al^{3+} ions substituted Ni-Zn-Co nano-spinel ferrites: **Nusrat Jahan, J. I. Khandaker, H. N. Das, and M. N. I. Khan**

- NM-04:** Comparison of structural and magnetic characteristics of $\text{CoNiFe}_2\text{O}_4$ @functionalized Cnts nanocomposite synthesized by different routes of hydrothermal process: **M. Al-Fahat Hossain, M. Al-Mamun, M. R. Rahman, Sheikh Manjura Hoque**
- NM-05:** Investigation of CuCo_2S_4 - moss_2 nanoparticles as electrode material for supercapacitor: **Sajjad Hasan, Subrata Das, Akter H. Reaz, Chanchal Kumar Roy, M A Basith**
- NM-06:** NM-06: Single crystal growth and anisotropic ionic conductivity of $\text{Li}_{3x}\text{La}_{(2/3-x)}\text{TiO}_3$: **Md. Shahajan Ali, Yuki Maruyama, Masanori Nagao, Satoshi Watauchi, Isao Tanaka**
- MN-07:** Investigation of the effect of Sm on magnetic and magnetodielectric properties of LaFeO_3 nanostructures: **Shovan Kumar Kundu, Dhiraj Kumar Rana, Soumen Basu**
- MN-08:** Synthesis and characterizations of ZnO nanoparticles and seed layers for subsequent growth of ZnO nanorods by hydrothermal process: **N. I. Tanvir, M. S. Hossain, N. Khatun, Md. Saidu Islam, S. Islam, and S.F.U. Farhad**
- MN-09:** Structural and improved dielectric, electrical and magnetic properties BFO-NiCuCd nanocomposites: **M. Z. Islam, M. Belal Hossen**

7 August 2021 (Saturday)

Session (VII): Theoretical and Computational Physics-II

Venue: Zoom online Platform

Time: 09.00 - 10.15

Chair : Prof. Md. Rafiqul Islam

Co-Chair : Dr. Ratan C. Gosh

Invited Talk

[20 minutes]

IT-VII : Formation of polarons in metal-oxide based solar absorber materials, Muhammad N. Huda

Contributory Papers

[10 minutes per paper]

- TCP-05:** Density functional theory-based investigation of mechanical, electronic, optical and thermal properties of AC (A = Nb, Ta, Ti) binary metallic carbides: **Razu Ahmed, Md. Sohel Rana, Sajidul Islam, Md. Mahamudujjaman, S. H. Naqib**
- TCP-06:** Atomic transport properties of liquid simple metals: A perturbative approach: **Mahir Manna, R.C. Gosh**
- TCP-07:** Boron-rich chalcogenide semiconductor materials: Prospects for device applications via DFT study: **M. M. Hossain, M. A. Ali, M. M. Uddin, S. H. Naqib, A. K. M. A. Islam**
- TCP-08:** Magnetic flux dynamics of high quality YBCO single crystal: insights from field and frequency dependent AC susceptibility measurements: **M. Rakibu Hasan Sarkar and S. H. Naqib**

Session (VII): Environmental Science and Meteorology

Venue: Zoom online Platform

Time: 10.20 – 11.35

Chair : Prof. Md. Mahbub Alam

Co-Chair : Dr. M. A. K. Mallik

Invited Talk**[20 minutes]**

- IT-VII:** Sustainable management of water resources using isotope techniques: Applications and active research areas in bangladesh: **Nasir Ahmed**

Contributory Papers**[10 minutes per paper]**

- ES-01:** Ensemble prediction of storm surge associated with cyclone Amphan using jma-mri storm surge model: **S.M. Quamrul Hassan and Syed Jamal Ahmed**
- ES-02:** Assessment of heavy metal distribution and contamination in water and sediments of the Kaptai Lake, Bangladesh: **Biplob Das, Mohammad Amirul Islam, Kamrun Naher, Rahat Khan, Umma Tamim, Farah Tasneem Ahmed, Mohammad Belal Hossen**
- ES-03:** Predictability of monsoon depression over the Bay of Bengal using weather research and forecasting model: **Md. Abul Hossen, M. A. K. Mallik, M. A. M. Chowdhury, Md. A. E. Akhter, Syed Jamal Ahmed and S. M. Quamrul Hassan**
- ES-04:** Sensitivity of microphysical parameterization scheme for the simulation of orographic rainfall event of 18 April 2015 over Bangladesh using WRF model: **Md. Omar Faruq, M. A. K. Mallik, M. A. M. Chowdhury, Md. A. E. Akhter, Md. Shadikul Alam, S. M. Quamrul Hassan and M. Arif Hossain**
- ES-05:** Hydrogeochemical evolution in deep aquifer systems of Kumilla, Bangladesh: **F. Islama, A. Zahid, A. H. A. N. Khan, M. Moniruzzaman, M. A. Q. Bhuiyan, M. A. Ahsan, S. Sultana, and R. K. Majumder**

Session (VIII): Materials Science-II**Venue: Zoom online Platform****Time: 11.40 – 13.00**

Chair : Prof. Faruque-Uz-Zaman Chowdhury

Co-Chair : Prof. A T M Kaosar Jamil

Invited Talk**[20 minutes]**

- IT-VIII:** MXenes: 5th generation 2D materials go beyond graphene: **M. M. Uddin**

Contributory Papers**[10 minutes per paper]**

- MS-07:** Performance optimization of TCO-less back contact dye-sensitized solar cells utilizing indoline and porphyrin sensitizer based on cobalt electrolyte: **Md. Zaman Molla, Ajay Kumar Baranwal, Shuzi Hayase and Shyam S. Pandey**
- MS-08:** Growth and characterization of LiCoO₂ single crystals for the applications of all solid-state Li-ion batteries (LIBs): **Ruma Parvin, Yuki Maruyama, Masanori Nagao, Satoshi Watauchi, Isao Tanaka**
- MS-09:** Effect of vanadium substitution on structural, magnetic and transport properties of Ni-Zn-Co ferrites: **M. D. Hossain, M. N. I. Khan, R. Rashid, S. J. Ahmed, A. T. M. Kaosar Jamil**
- MS-10:** Analysis of the HTS Inductor design for optimum energy storage in SMES: **M. R. Islam, Jahangir Alam and M. A. A. Zaman**

- MS-11:** Impact of Lanthanum ions on structural, optical, and magnetic properties of Cobalt-Zinc ferrites: **Mohammad Osman Goni¹, Nazia Khatun, Mohammad Sajjad Hossain, M. Al- Mamun, Mohammad Saiful Alam, Suravi Islam, Most. Hosney Ara Begum, Syed Farid Uddin Farhad and Mahmuda Hakim**
- MS-12:** Dielectric Properties and Impedance Spectroscopy of V₂O₅ added Li-Zn Ferrites: **Sm. Rubayatul Islam, M. Miftaur Rahman, S. Manjura Hoque and M. Samir Ullah**

Lunch and Prayer Break : 13.00 – 14.00

Session (IX): Health Physics
Venue: Zoom online Platform
Time: 14.00 –15.15

Chair : Prof. Suranjan Kumar Das
 Co-Chair : Dr. Abul Hasnat Rubel

Invited Talk [20 minutes]

IT-IX: Towards development of radioluminescence sensors, **David Bradley**

Contributory Papers [10 minutes per paper]

- HP-01:** Study on Radiation Protection Infrastructure of different x-ray facilities in Habiganj district city with different thanas: **L. Begum, R. B. Rana, M. Akramuzzaman, M. M. Rahman, and M. Nahar**
- HP-02:** Real-time Environmental radiation monitoring in tejgaon thana following in-situ method: **M. A. Rahman Shuvo, M. S. Rahman, S. Yeasmin, Md. Kabir Uddin Sikder**
- HP-03:** Health effects of electromagnetic radiation from cell phone and towers: it's present scenario in Bangladesh: **Munima Haque, M. Quamruzzaman, Md. Shohag Hossain**
- HP-04:** Source apportionment and health risk assessment of heavy metals from indoor air dust of an industrial area, Savar, Bangladesh: **M. A. M. Mottali Sarkar, M.M. Hasan, M. S. Rahman, B.A. Begum**
- HP-05:** Analysis of circulating cell free DNA extracted from blood plasma of cancer patients and healthy persons and their Z-scan study: **H. Ara, S. A. Tarek, S. M. S. Al Din, M. K. Biswas, S. M. Sharafuddin, S B Faruque and Y. Haque**

Session (X): Thin Film
Venue: Zoom online Platform
Time: 15.20 – 16.35

Chair : Prof. Jiban Poddar
 Co-Chair : Dr. Md. Tareq Chowdhury

Invited Talk [20 minutes]

IT-X: Materials for stable perovskite solar cells: advances, challenges and opportunities: **Md. Akhtaruzzaman**

Contributory Papers**[10 minutes per paper]**

- TF-01:** Thickness dependent thermal and optical characteristics of plasma polymerized N-benzylaniline thin films: **Rani Nasrin, Mohammad Jellur Rahman, A. T. M. K. Jamil, A. H. Bhuiyan**
- TF-02:** Comparative study of power and thickness dependent optical properties of AC plasma polymerized 3,4-Ethylenedioxythiophene thin films: **Md. Juel Sarder, Mohammad Jellur Rahman, Md. Mahmud Hasan, and A. H. Bhuiyan**
- TF-03:** Evolution in surface properties, band gap tuning and reversal in electrical conductivity of ZnO thin films achieved via B doping: **M. Sharmin, A. H. Bhuiyan, J. Podder and K. S. Hossain**
- TF-04:** Structural, optical and transport properties of Fe: Co₃O₄ thin films grown by spray pyrolysis technique: **M. Zahan and J. Podder**
- TF-05:** Characterization of the physical properties of Cu₂O thin films synthesized in the presence of NaCl by modified SILAR method: **A. Hossaina, N. I. Tanvir, S. F. U. Farhad, S. Majumder, B. C. Ghos, M. A. Rahman, T. Tanaka, Q. Guo, M. A. M. Patwary**

Poster Session : 16.40 – 18.00

Session (XI): Physics Education & Closing**Venue: Zoom online Platform****Time: 18.00 – 19.00**

Chair : Prof. Mesbahuddin Ahmed

Co-Chair : Dr. Md. Nazrul Islam Khan

Contributory Papers**[10 minutes per paper]**

- PE-01:** Gender issues in science classroom and female learner's participation in higher education science programs: **Anina Mahmud, Mohammad Nure Alam Siddique**
- PE-02:** status and reasons of current practice of science practical at the secondary level: **S. M. Hafizur Rahman, Md. Salimuzzaman, TahminaHoq**
- PE-03:** A study on the effectiveness of online classes in Bangladesh during the COVID-19 pandemic: **Shahid Uddin Fahim, Md. Tanjimul Islam, Md. Mahmudul Hasan, Humaira Khondokar Gim, Fatema Jahan, Humayra Ferdous, Tafazzal Hossain, Md. Ehasanul Haque**

List of Posters for Presentation

- PP-01:** Assessment of ambient air quality in Dhaka city and sources of pollutant identification: **M.M. Hasan, B.A. Begum, M.S. Rahman, M.A.M Mottalib Sarkar**
- PP-02:** Recent pre-monsoon thunderstorms scenario over Bangladesh: **Mohammed Mozammel Hoque, Syed Jamal Ahmed, M. A. K. Mallik, S. M. Quamrul Hasanand, Ishtiaque M. Syed**
- PP-03:** Synthesis and characterization of SWCNT modified biopolymer with super cyclic stability for transient energy storage application: **Rabeya Binta Alam, Md. Hasive Ahmad, Muhammad Rakibul Islam**
- PP-04:** Determination of essential elements in medicinal plants of the Sundarban mangrove forest by neutron activation analysis: **Md. Barkat Ullah Pappu, Mohammad Amirul Islam, Abdullah Al-mamun, Rinku Majumder**
- PP-05:** Simulation of a severe thunderstorm and its characteristics over Dhaka, Bangladesh using WRF Model: **Most. Marioum, M. A. K. Mallik, Suranjan Kumar Das, S.M. Quamrul Hassan and Md. Omar Faruq**
- PP-06:** Implementation of meteorological data and atmospheric dispersion model for radiological consequence analysis: **Md. Abu Khaer, S. Sultana Shiuli, Md. Ajijul Hoq, Mohammed Tareque Chowdhury, Mohammad Mizanur Rahman**
- PP-07:** Ternary scandium based antiperovskite $\text{Sc}_3\text{GaX}(\text{X}=\text{B},\text{N})$: DFT study: **Istiaq Ahmed, F. Parvin, A.K.M. A. Islam**
- PP-08:** Recent track climatology of cyclonic disturbances over the Bay of Bengal: **Shahanaj Sultana, M. A. K. Mallik, Md. Shadikul Alam, Md. Omar Faruq, Md. Abdul Mannan and S.M. Quamrul Hassan**
- PP-09:** Database from secondary data of concentration of NORM and making an absorbed dose map for overall Bangladesh: **Md. Ashik Azad Khan, A.K. M. Saiful Islam Bhuian, Shahadat Hossain and Quazi Muhammad Rashed Nizam**
- PP-10:** Radiation monitoring around cancer hospital campus and evaluation of radiological risk on public health: **Md. Arman Ali, M. S. Rahman, S. Yeasmin, Md. Kabir Uddin Sikder**
- PP-11:** Estimation of radiation risk on worker & public from radiological facility using thermoluminescent dosimeters: **Omar Faruk, M. S. Rahman, K. N. Sakib, M. M. Tasnim, S. Yeasmin**
- PP-12:** Real-time radiation monitoring around BIRDEM hospital campus and estimation of radiation risk on public health: **Sk. Sabbir Ahmed Shakil, M. S. Rahman, S. Yeasmin, Md. Kabir Uddin Sikder**
- PP-13:** Real-time radiation monitoring around LABAID hospital campus and evaluation of radiation risk on public: **A. A. Shuhan, M. S. Rahman, S. Yeasmin, Md. Kabir Uddin Sikder**
- PP-14:** Implementation of Meteorological data and atmospheric dispersion model for radiological consequence analysis: **Md. Abu Khaer, S. Sultana Shiuli, Md. Ajijul Hoq, Mohammed Tareque Chowdhury, Mohammad Mizanur Rahman**
- PP-15:** Real-time radiation monitoring at outdoor of mitford hospital campus and estimation of radiation risk on public: **L. A. Tonu, M. S. Rahman, Pretam K. Das, S. Yeasmin**
- PP-16:** Synthesis of gallium (Ga) Doped CdO/p-Si heterojunction and evaluation of junction parameters: **Abdur Rouf, M. K. R. Khan, M. Saifur Rahman, M. S. I. Sarker and M. Mozibur Rahman**
- PP-17:** Surface morphology of Ca Doped $\text{Li}_{0.5}\text{Bi}_{0.5}\text{Fe}_{0.5}\text{Nb}_{0.5}\text{O}_3$ perovskite: **M. A. Rashid, K. A. Rahman and A. K. M. Akther Hossain**
- PP-18:** Reduced graphene oxide supported cobalt ferrite nanoparticles: a study of synthesis mechanism, structural, magnetic and thermal stability characterization: **Gobinda Chandra Mallick, M. Al-Mamun, M. R. Rahman, M. Al-Fahat Hossain, Sheikh Manjura Hoque**

- PP-19:** Structural, electrical and magnetic properties of Ce and Fe doped SrTiO₃: **Tarique Hasan, Arnab Saha, M. N. I. Khan, M. A. Basith, Muhammad Shahriar Bashar, H. N. Das, R. Rashid, Tarique Hasan, and Imtiaz Ahmed**
- PP-20:** Determination of thermo-optic coefficient, nonlinear absorption coefficient and nonlinear refraction coefficient in the thermal regime of L-tryptophan using closed aperture CW Z-scan: **S. A. Tarek, S. B. Faruque, S. M. Sharafuddin, K. M. E. Hasan, A. K. M. M. Hossain, H. Ara, M. K. Biswas, Y. Haque**
- PP-21:** Study on the iron-deficient non-stoichiometry driven electromagnetic and magnetoelectric properties of multiferroic composites: **Sharifa Nasrina, Tabassum Haque Joyee, A.K.M. Akther Hossain, and Md. D. Rahaman**
- PP-22:** Comparison of perovskite nanorod's bandgap obtained via diverse methods for optoelectronic applications: **Mohammad Tanvir Ahmed, Shariful Islam, Farid Ahmed**
- PP-23:** Performance optimization of TCO-less back contact dye-sensitized solar cells utilizing indoline and porphyrin sensitizer based on cobalt electrolyte: **Md. Zaman Molla, Ajay Kumar Baranwa, Shuzi Hayase and Shyam S. Pandey**
- PP-24:** Design and investigation of step-index core polymer directional coupler for board-level optical circuitry: **Fariha Tasnim, Md Omar Faruk Rasel, and Takaakilshigure**
- PP-25:** Effect of Gd substitution on the structural, dielectric and electric properties of Ni-Cu-Cd ferrite nanoparticles: **M. AnwarHossain, M. Belal Hossen**
- PP-26:** Synthesis and characterization of europium doped nickel zinc cobalt ferrite: **Imran Sardar, Md. Nazrul Islam Khan, Md. Rashedur Rahman, Md. Sohel Sikder**
- PP-27:** Facile method for synthesizing ZnO nanorods with controllable size: **M. Sultana, Mohammad Jellur Rahman, M. S. Bashar**
- PP-28:** Study of structural and initial permeability of strontium and nickel co-doped barium titanate sintered at 1250°C: **Mehedi Hasan, A. K. M. Akther Hossain**
- PP-29:** Structural and magnetic properties of Li-Cr-Zn ferrites: **Rowshon Satara, M. Firoz Uddin, M. Zaman Molla, Mahmudul Hasan, Faizus Salehin, S. Manjura Hoque, F. A. Khan and, M. Samir Ullah**
- PP-30:** Detailed electrical investigation on highly potential NCZA ceramics for MLCI and miniaturized device applications: **M Rahim Ullah, H M A R Maruf, N M Eman, N J Shirin and M Belal Hossen**
- PP-31:** Possible applications of multi-Josephson junction in superconductor as a quantum interferometer: **H.M.A.R. Maruf, Md. Abdullah Al Zaman, M.R. Islamand F.-U.-Z. Chowdhury**
- PP-32:** Analysis of beam contamination along the beam path by isotopes of ¹²C beam and their role in charge changing cross section measurement by PHITS: **Quazi Muhammad Rashed Nizam**
- PP-33:** Investigation of molecular transport through multipore into giant unilamellar vesicles using COMSOL simulation: **Md. Asaduzzaman, T. Rahman, M.S. Ishtiaque, M.I. Hossain, Md. A. S. Karal and Md. K. Alam**
- PP-34:** Synthesis of ZnO nanoparticles from waste materials: **Tanvir Ahmed Chowdhury, Jahirul Islam Khandaker, Md. Abdul Gafur**
- PP-35:** Rietveld analysis on the structural properties of Mn Substituted Ni-Cu-Cd bulk ferrites synthesized from nanocrystalline powders: **Mia Md Fakharuddin Ali Mazlobee, M. R. Shah and M. Belal Hossen**
- PP-36:** Graphene oxide and Reduced graphene oxide reinforced hydroxyapatite based nano composites for biomedical application: **Md. Ifat-Al-Karim, Md. Al Mamun, Md. Mahbubul Haque, Farzana Nahid**
- PP-37:** Reduced graphene oxide supported cobalt ferrite nanoparticles: a study of synthesis mechanism, structural, magnetic and thermal stability characterization: **Gobinda Chandra Mallick, M. Al-Mamun, M. R. Rahman, M. Al-Fahat Hossain, Sheikh Manjura Hoque**

- PP-38:** Analysis of grain growth, densification and reduction of porosity, coercivity and functional properties of Mn substituted Ni-Cu-Zn nanocrystalline ferrites: **Abdul Ahad, and A. K. M. Akther Hossain**
- PP-39:** Structural, electrical and magnetic properties inspection for rare-earth substituted magnetic dense ceramics synthesized from Nanoferrites: **M. Faishal Mahmood and M. Belal Hossen**
- PP-40:** Atomic-scale investigation of the formation of Al nanocluster in the pulsed laser ablation technique: **Samiul Hossain Sajal, Nithika Datta and Md Enamul Hoque**
- PP-41:** Hot injection synthesized lead-free CsSnCl₃ nanocrystals: an experimental investigation :**Yasir Fatha Abed, Md. Shahjahan Ali, Subrata Das, M. A. Basith**
- PP-42:** Study of the structural and magnetic properties of Gd doped CoFe₂O₄ nanoparticles synthesized via sol-gel route: **M. S. I. Sarker, Marufa Yeasmin, S. Manjura Haque, M. M. Rahman, M. K. R. Khan**
- PP-43:** Synthesis and Characterization of Co₃O₄ incorporated three-Dimensional MoS₂ nanostructure: **Muhammad Hasive Ahmad, Rabeya Binta Alam, S.F. U. Farhad, Muhammad R. Islam**
- PP-44:** Impact of particle size on the magnetic properties of highly crystalline Yb³⁺ substituted Ni-Zn nano ferrites: **N. Jahan, M.N.I. Khan, F.-U.-Z. Chowdhury, M. R. Hasan, H. N. Das, M.M. Hossain and M.M. Uddin**
- PP-45:** Dielectric, modulus, impedance spectroscopy and conductivity properties of Mg-substituted Cu-Zn-Al nano ferrites with structural rietveld refinement: **S. K. Ahmed and M. B. Hossen**
- PP-46:** Fabrication and characterization of the metallic nanoparticles using pulsed laser ablation technique: **Mustabi Mustafa Chowdhury and Md. Enamul Hoque**
- PP-47:** Effects of atomic number and pressure of different filling gases on soft X-ray yield from PF1000 plasma focus device: **M A Malek, L Akter, G S Rakib, M M Islam, M N Huda, and M K Islam**
- PP-48:** Design, development and simulation of a nuclear counting system using ATMEL microcontroller: **M. N. Islam, M. S. Alam and M. A. S. Haque**
- PP-49:** Data hiding using audio steganography considering less distortion of cover data for nuclear data: **Md. Shamimul Islam, Nayan Kumar Datta, Md. Mahbub Alam, Dr. Md. Dulal Hossain, Dr. Md. Shakil Ahmed**
- PP-50:** Theory of 3F4D universe (Beyond SM of Particle Physics): **Yogesh V. Chavan**
- PP-51:** Elastic, electronic, bonding, optoelectronic and thermophysical properties of SnTaS₂: comprehensive insights from ab-initio calculations: **M. I. Naher, M. Mahamudujjaman, A. Tasnim, S. H. Naqib**
- PP-52:** MAX phase materials: prospect of MAX phase borides: **M. A. Ali, M. M. Hossain, M. M. Uddin**
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