

Session-01 (Main Hall)

Monday, October 27, 2025 Time 11:00-12:40

Chairperson: Dr Wilayat Husain & Dr Sara Qaisar

- | | | | |
|-------------|--------|----|---|
| 11:00 | 25-43 | KN | Quantum Dots Based Infrared Photodetectors
<i>Shengyi Yang, China</i> |
| 11:40 | 25-139 | KN | Material Challenges and Failure Insights: A Multisector Review from Aerospace to Industrial Processing
<i>Anjum Tauqir, Pakistan</i> |
| 12:20 | 25-98 | | Electrochemical Behavior of Casted and SLMed IN718 Under an Acidic Environment
<i>Ameeq Farooq, Pakistan</i> |
| 12:40-14:00 | | | Lunch Break |

Session-02 (Closed Session)

Monday, October 27, 2025 Time 11:00-12:40

- | | | | |
|-------------|--|--|-------------|
| 12:40-14:00 | | | Lunch Break |
|-------------|--|--|-------------|

Session-03 (Main Hall)

Monday, October 27, 2025 Time 14:00-15:40

Chairperson: Dr. Anjum Tauqir & Dr. Shengyi Yang

- | | | | |
|-------|--------|----|---|
| 14:00 | 25-152 | KN | Tailoring Self-Cleaning and Optical Properties of Zinc Oxide Nanorods Via Controlled Sulfur Doping
<i>Ari Sulisty Rini, Indonesia</i> |
| 14:40 | 25-70 | KN | Phenomenon of Formation and 1D Growth of Aluminum Oxyhydroxide Nanofibrils and Methods for Creating New Functional 3D Nanostructures
<i>Anatole Khodan, Russia</i> |
| 15:20 | 25-275 | | Predicting the Quantum Capacitance of $\text{Cu}_x\text{Ni}_{1-x}$ Alloys: a Combined Approach of Density Functional Theory and Machine Learning |

Muhammad Sheraz Khaliq, Pakistan

Tea Break

15:40-16:00

Session-04 (Room 108)

Monday, October 27, 2025 Time 14:00-15:40

Chairperson: Dr. Sajjad ur Rehman & Dr Ameer Farooq

- | | | | |
|-------------|-------|----|--|
| 14:00 | 25-5 | KN | Nanomaterial-Enabled Solutions for Advanced Water Testing and Treatment: Innovations in Sensing and Adsorption
<i>Muhammad Yasir Khan, Pakistan</i> |
| 14:40 | 25-81 | KN | From Textiles to Power Textiles: The Future of Energy-Integrated Clothing
<i>Awais Sattar Ghouri, Pakistan</i> |
| 15:20 | 25-15 | | Investigating the Effect of an AlGaN EBL on the Performance of Green InGaN/GaN Quantum Dot LEDs
<i>Muneeba Gul, Pakistan</i> |
| 15:40-16:00 | | | Tea Break |

Session-05 (Exhibition)

Monday, October 27, 2025 Time 16:00-17:25

Exhibition

Session-06 (Main Hall)

Tuesday, October 28, 2025 Time 09:00-10:40

Chairperson: Dr Umair Manzoor & Dr Anatole Khodan

- | | | | |
|-------|--------|----|---|
| 09:00 | 25-131 | KN | Optimizing the Properties of Special Alloy through Structural Control
<i>Asif Ali Qaiser, Pakistan</i> |
| 09:40 | 25-111 | KN | Catalytic Transformation of Triglyceride into Sustainable Green Fuels
<i>Y.H. Taufiq-Yap, Malaysia</i> |

10:20	25-47	Synergistic Adsorption and Photocatalytic Degradation Using Silver-Doped TiO ₂ Nanoparticle Beds for the Removal of Melanoidin from Distillery Wastewater <i>Mehwish Qaseem, Muhammad Yasir Khan, Pakistan</i>
10:40-11:00		Tea Break

Session-07 (Room 108)

Tuesday, October 28, 2025 Time 09:00-10:40

Chairperson: Dr Ari Sulistyo Rini & Dr Muhammad Sheraz Khaliq

09:00	25-41	KN	Aluminum: Metal of 21st Century, Realizing its True Potential, Challenges and Opportunities <i>Shahid Akhtar, Norway</i>
09:40	25-66	KN	From Pakistan to the World: Breaking Barriers in High-Frequency and Energy-Efficient Quantum Semiconductors <i>Muhammad Usman, Pakistan</i>
10:20	25-55		Biodegradation of Different Magnesium Alloys in Simulated Body Fluids <i>Ameeq Farooq, Zeeshan Asif, Muhammad Haris Qureshi, Muhammad Rehan Tariq, Dr. Umer Chaudry, Pakistan</i>
10:40-11:00			Tea Break

Session-08 (Main Hall)

Tuesday, October 28, 2025 Time 11:00-12:40

Chairperson: Dr Shahid Akhtar & Dr. Naseem Irfan

11:00	25-69	KN	The Application of Nanoparticles in Joining Technologies <i>Tahir Irfan Khan, Pakistan</i>
11:40	25-67	KN	Powder Metallurgy Hot Isostatic Pressing Manufacturing of High-Performance Industrial Parts <i>Raja Khan, United Kingdom</i>
12:20	25-85		Friction Stir Spot Welding of Space-Grade Aluminium Alloy 6061-T6 Using a Conventional Milling Machine with a Backing Plate Integrated with Temperature and Load Sensors

Dr. Muhammad Sohail, Pakistan

12:40-14:00 Lunch Break

Session-09 (Room 108)

Tuesday, October 28, 2025 Time 11:00-12:40

Chairperson: Dr Wei Lei & Dr Iftikhar us Salam

- | | | | |
|-------------|--------|----|---|
| 11:00 | 25-6 | KN | Microstructural Regulation of Nickel-Rich Cathode Materials for High-Performance Solid-State Batteries
<i>Lin Wang, China</i> |
| 11:40 | 25-141 | VL | Surface Engineering of Photocurable Polymer Composites Integrated with Additive Manufacturing
<i>Chan Ho Park, South Korea</i> |
| 12:20 | 25-151 | VL | Manipulating Electromagnetic Fields and Waves by Artificial Functional Materials
<i>Yungui Ma, China</i> |
| 12:40-14:00 | | | Lunch Break |

Session-10 (Main Hall)

Tuesday, October 28, 2025 Time 14:00-15:40

Chairperson: Dr Taufiq Yap & Dr Shabbar Abbas

- | | | | |
|-------------|--------|----|--|
| 14:00 | 25-205 | KN | Spectral X-Ray Imaging with Sensors Based on Perovskite Multi-Junctions
<i>Wei Lei, China</i> |
| 14:40 | 25-48 | KN | Seeing the Unseen: IR Microscopy in the World of Materials
<i>Shaikh Mohiuddin, Pakistan</i> |
| 15:20 | 25-31 | | Atomic-Scale Insights into Single-Atom Catalysts Via Advanced Electron Microscopy
<i>Dalaver H. Anjum, United Arab Emirates</i> |
| 15:40-16:00 | | | Tea Break |

Session-11 (Room 108)

Tuesday, October 28, 2025 Time 14:00-15:40

Chairperson: Dr Muhammad Usman & Dr Muhammad Metin Ozgul

- | | | | |
|-------------|--------|----|---|
| 14:00 | 25-53 | KN | Single-Step Synthesis of Mixed Transition Metal Phosphates for Efficient Water-Splitting
<i>Umair Aftab, Pakistan</i> |
| 14:40 | 25-102 | KN | Interfacial Engineering in Hybrid Fillers: A Study on the Synergistic Enhancement of Thermal Conductivity in Epoxy-Based TIMs
<i>Muhammad Wasim Akhtar, Pakistan</i> |
| 15:20 | 25-99 | | Investigating the Biocompatibility and Dissolution Behavior of Calcium Phosphate Conversion (CaP) Coating on AZ31B Magnesium Alloy
<i>Ameeq Farooq, Pakistan</i> |
| 15:40-16:00 | | | Tea Break |

Session-12 (Poster-01)

Tuesday, October 28, 2025 Time 16:00-17:15

- | | |
|-------|--|
| 25-8 | Development of Copper Alloy for High Heat Flux Applications
<i>Muhammad Owais Mirza, Talha Ahmed, Syed Shabbar Abbas Rizvi, Zeeshan Siraj Deen, Syed Wilayat Husain, Pakistan</i> |
| 25-9 | Palladium Deposited TiO ₂ Nanoparticles: Synthesis, Characterization and Photodegradation Study of Azo-Dye
<i>Muniba Yaseen Naz, Dr.Tayyaba Ghani, Pakistan</i> |
| 25-10 | Development of Polymer Bonded NdFeB Magnets Through Injection Molding
<i>Madiha Noreen, Shahid Imran, Salman Waqar, Omer Farooq, Aamir Nusair Khan, Pakistan</i> |
| 25-11 | Enhancing Perovskite Solar Cell Performance: Comparative Analysis of ZrO ₂ Spacer Layer Effects
<i>Mujeeb ur Rahman, Muhammad Usman, Pakistan</i> |

- 25-13 Analysis of Hygrothermal Behavior of Polymer Composite Materials
Zia Ullah Khan, Prof Dr Abdul Shakoor, Pakistan
- 25-14 The Effect of Cold Working and Aging Treatment on Mechanical Properties and Internal Residual Stresses in Elgiloy Rolled Sheets
Talha Ahmed, Muhammad Moaaz Zafar, Mudassir Rauf, Dr. Ahnaf Usman, Khalid Mahmood, Dr. Syed Shabbar Abbas Rizvi, Pakistan
- 25-16 Optoelectronic Simulation of ITO/NPB/Alq₃:DCJTB/Alq₃ Organic Light Emitting Diode: Effect of Hole Transport Layer Thickness on Device Performance
Aiman Fatima, Muhammad Usman, Shazma Ali, Anis Naveed, Anuda Bibi, Haseena Noor, Pakistan
- 25-18 Performance Enhancement of Blue InGa_N-Based Resonant Cavity Light Emitting Diodes with Graded Electron Blocking Layer
Haseena Noor, Muhammad Usman, Shazma Ali, Anuda Bibi, Aiman Fatima, Pakistan
- 25-20 Improving Spectral Selectivity in GaAs IR Photodetectors Via AlGaAs Filter Layer: a Simulation Study
Anis Naveed, Muhammad Usman, Jamshad Bashir, Zoya Noor, Pakistan
- 25-21 Microstructure, Composition and Mechanical Properties of Laser Welded Nitinol Joint
Qazi Muhammad Yaseen, Rizwan Mahmood Gul, Muhammad Ali Kamran, Muhammad Kaleem Ullah Khalil, Mirza Nadeem Baig, Pakistan
- 25-22 Effect of Tool Configuration and Post-Weld Treatments on the Corrosion Behavior of Friction Stir Welded Dissimilar Aerospace-Grade Aluminum Alloys
Afnan Haider Khan, Syed Shah Niaz, Rizwan Mahmood Gul, Muhammad Ali Kamran, Muhammad Samiullah, Afaq Ahmed Hayat, Pakistan
- 25-23 HA Coating Using Indigenously Developed Electrophoretic Deposition Technique for Biomedical Applications
Muhammad Tahir, Saeedullah, Ubaidullah, Malik Mudassir Khan, Talal Ahmad, Muhammad Kaleem Ullah Khalil, Mohsin Hayat, Rizwan Mahmood Gul, Pakistan

- 25-24 Indigenous Development of UHMWPE Acetabular Liner and Its Comparison with a Foreign Made Liner for Total Hip Arthroplasty
Mohsin Hayat, Rizwan Mahmood Gul, Muhammad Ali Kamran, Muhammad Kaleem Ullah Khalil, Muhammad Tahir, Pakistan
- 25-25 Effect of Dy Addition on Microstructure and Coercivity Enhancement of NdFeB Permanent Magnets
Salman Waqar, Pakistan
- 25-26 Manufacturing of High-Leaded Brass Wire Using Multi-Pass Cold Drawing Process.
Talha Ahmed, Farooq Iqbal, Dr. Ahnaf Usman, Khalid Mahmood, Dr. Wali Muhammad, Dr. Syed Shabbar Abbas Rizvi, Pakistan
- 25-27 Fabrication and Analysis of NiCo₂O₄ Based Asymmetric Supercapacitor Pouch Cells
Sadia Khalid, Haq Nawaz, Syed Khalid Mehmood Shah, Mohammad Shuaib, Pakistan
- 25-29 Bioactive Coatings of Mesoporous Calcium Silicate Hydrate Nanoparticles on Stainless Steel Substrate for Biomedical Applications
Huma Ramzan, Pakistan
- 25-30 Synthesis and Characterization of High Coercivity Dry Pressed Anisotropic Co-La Oxides Doped Strontium Hexaferrites by Modified Powder Metallurgy Technique
Shakir Khan, Muhammad Mustaqim, Omar Farooq Azam, Ali Haider, Aamer Nusair Khan, Pakistan
- 25-32 Performance Enhancement of Aluminum Gallium Nitride Nanowire Ultraviolet-C Light-Emitting Diodes Through Electron Blocking Layer-Free Architectures: an APSYS-Based Simulation Study
Anuda Bibi, Muhammad Usman, Shazma Ali, Aiman Fatima, Haseena Noor, Pakistan
- 25-33 Development of Graphical User Interface (GUI) for Material Characterization Based on Artificial Intelligence
Hasan Qayyum Chohan, Muhammad Waqas Latif, Omar Farooq Azam, Ali Haider, Aamer Nusair Khan, Pakistan

- 25-37 Numerical Simulations and Validation of Metal Foam Composite Panel Subjected to Blast Loading by Using AUTODYN 2D
Salman Waqar, Pakistan
- 25-39 Societal Impact of Artificial Intelligence in Materials Engineering
Sehrish Khan Tayyaba, Pakistan
- 25-42 Achieving Ultra High Surface Finishing of Additively Manufactured Metal Parts Through Dry Electro-Polishing
Shakeel ur Rahman, Aqeel Ahsan Khurram, Muhammad Naveed Ahsan, Pakistan
- 25-45 Synthesis of Zinc Oxide Nanoparticles and their Application in Artificial Insemination (AI) of Goats
Syeda Sohaila Naz, Mubashir Ali Khalique, Syed Murtaza Hassan Andrabi, Habib Rehman, Irfan Zia Qureshi, Pakistan
- 25-54 Effect of Thermomagnetic Treatment on 7Al-15Ni-26Co-4Cu-48Fe Alloy Doped with Niobium to Enhance Magnetic Remanance
Nouman Bashir, Dr. Ali Haider, Dr Amir Nusair, Pakistan
- 25-76 AI-Assisted Corrosion Risk Assessment of Reinforced Concrete Structures Using Integrated Corrosion Rate System (ICOR)
Mahmood Khan, Pakistan
- 25-77 Development of Natural Defects in Welded Steels Plates and Forgings
Mahmood Khan, Pakistan
- 25-92 Charge Conduction in Chalcopyrite CuFeS₂ Nanoflakes
Usman Ali, Pakistan
- 25-94 Advanced Technique for Sn-Cu Soldering of Electric Drive Circuit Board
Nouman Bashir, Ahsan Ahmad, Ali Haider, Aamir Nusair Khan, Pakistan
- 25-95 Thermal Treatment Optimization for FeCrCo Alloy Processing by Using Taguchi Method.
Ali Haider, Aamir Nusair Khan, Syed Husain Imran Jaffery, Pakistan

- 25-97 Electrochemical and Biocompatibility Evaluation of Pure Magnesium with Addition of Different Percentage of Calcium
Kanza, Zeeshan Asif, Aliya Tufail, Ameerq Farooq, Pakistan
- 25-100 Synthesis of Calcium Phosphate Coating on AZ31 Magnesium Alloys by Hydrothermal Method
Umar Hussain, Zeeshan Asif, Umar Asad, Ameerq Farooq, Pakistan
- 25-110 Surface Modification and Effect of Anodization Parameters on Magnesium Alloy AZ31 for Controlled Biodegradability of Orthopedic Implants
Muhammad Ahmad, Ahmad Ali, Muhammad Asif Hussain, Ameerq Farooq, Hafiz Muhammad Kabeer Raza, Ehsan Ul Haq, Pakistan
- 25-113 Effect of NdFeB Magnet Design on Efficiency of Electric Vehicle Motor
Abdul Basit, ALI Haider, AAMIR Nusair Khan, Pakistan
- 25-130 Redox Active Cobalt Based Bi-Linker Metal Organic Frameworks Derived from 5-Sulfoisophthalic Acid and 4,4-Bipyridine for Supercapacitor
Ghulam Ullah, Pakistan
- 25-134 Effect of Gas Atomizer Nozzle Parameters on Characteristics of Inconel-718 Powder Produced for 3D-Printing
MUHAMMAD Talha, ANJUM Shahzad, OMAR Farooq Azam, Aamir Nusair Khan, ALI Haider, Pakistan
- 25-135 Metal Powder Production Facility Ni-Cr Alloy Based Tubular Heater Development for Immersion Resistance Heating
Anjum Shahzada, Ali Haider, Ahsan Ahmad, Aamir Nusair Khan, Pakistan
- 25-136 Investigation of Electrical Conduction Characteristics of CuCr-0.60Fe and CuCr-1.4Fe Alloys
ADEEL Ahmad, ALI Haider, MUHAMMAD Nasir, AAMIR Nusair Khan, Pakistan
- 25-148 Transplantation of Hydrogel-Entrapped Mitochondria in Skeletal Muscle Injury
Zarrish Rubab, Muhammad Rizwan Alam, Pakistan

- 25-149 Development and Characterization of Oxidation and Erosion Resistance Coating on Graphite
AbuBakar, Dr.Syed Wilayat Husain, Pakistan
- 25-156 2D Mo₂C MXene for High-Performance Asymmetric Supercapacitors
Uzair Waheed, Bilal Ahmad, Faisal Umar, Yaqoob Khan, Pakistan
- 25-157 V2C MXene based Gas Diffusion Electrodes for CO₂ Electrolyzers
Bilal Ahmad, Uzair Waheed, Faisal Umar, Yaqoob Khan, Pakistan
- 25-158 Investigating the Electrochemical Dynamics of Laser-Induced Graphene (LIG) for Photoelectrochemical Energy Conversion and Storage
Azka Shahid Ejaz, Dr. Muhammad Abdul Basit, Pakistan
- 25-159 On the Development of Non-Enzymatic Sensor for the Electrochemical Detection of Glucose
Aiman, Ayaz Hassan, Pakistan
- 25-160 Effect of Aging Treatment on Microstructure and Magnetic Characteristics of FeNiCoAlCu Alloy
Asia Ahmed, Inam Ullah Khan, M. N. Sarwar, Ali Haider, Aamir Nusair Khan, Pakistan
- 25-161 Evaluation of Structural, Microstructural, Thermal and Magnetic Characteristics of Co-Ti-Al-Ni Magnetic Alloy
Inam Ullah Khan, Asia Ahmed, M. N. Sarwar, ALI Haider, AAMIR Nusair Khan, Pakistan
- 25-162 Comparison of Two Manufacturing Routes of Aluminum Alloy 2014 Bars to Obtain Consistent Qualified Product as Per Standard BS 1474
Mehtab Ali, Usman Waheed, Munawar Zaman, Pakistan
- 25-163 Comparison of Analysis Techniques for the Determination of High Concentration Alloy Elements and Impurities in Aluminum Master Alloys
Rehan Ahmad, Munawar Iqbal, Zeeshan Abbasi, Muhammad Afzal, Pakistan

- 25-164 Mo2C MXene for High-Performance Pouch Cell Supercapacitors
Uzair Waheed, Bilal Ahmad, Faisal Umar, Yaqoob Khan, Pakistan
- 25-165 Designing and Implementing the Waste-To-Wealth Approach for Development of Metallurgical and Nanoscale Materials from Solar Panel Waste
MAARIJ ALI, Maira Khaleel, Salwa Zafar, Dr. Muhammad Abdul Basit, Pakistan
- 25-166 2D Nb2C Mxene-MOF Composite for High Performance Assymetric Supercapacitors
Faisal Umar, Uzair Waheed, Bilal Ahmad, Yaqoob Khan, Pakistan
- 25-167 Optimization of Standard Resin to Achieve Best Combination of Mechanical Properties
Muhammad Ismail Ayyan, Mariyam Ijaz, Hafiz Kabeer Raza Chishti, Waseem Amin, Muhammad Asif Hussain, Pakistan
- 25-168 Optimization of Coating Parameters to Achieve High Corrosion Resistance of Inconel 625 Coatings Deposited by Wire Arc Spray Process
Eeman Jawed, Hafiz Kabeer Raza Chishti, Muhammad Asif Hussain, Waseem Amin, Shehzad Hussain, Pakistan
- 25-169 Development of FeCrB Wear Resistant Coatings by Wire Arc Spray Process
Shehzad Hussain, Hafiz Kabeer Raza Chishti, Muhammad Yasir, Muhammad Asif Hussain, Waseem Amin, Eeman Jawed, Pakistan
- 25-170 Comparative Analysis of Structural and Dielectric Properties of NiFe2O4, NiMn2O4, and CNT Composites
Hira Sultan, Haider Ali, Dr. M Anis ur rehman, Pakistan
- 25-174 Tailoring the Electrical Properties of Lithium Ferrite Through Cobalt
Kashaf Naheed, Muhammad Anis ur Rehman, Waqar Mehmood, Pakistan
- 25-175 Synthesis and Characterization of Magnetron Sputtered Multi-Layer W-Doped Diamond-Like Carbon Coatings
Haider Ali Ansari, Abdul-Raheem Sufyan, Dr. Asad Ali Dilawary, Pakistan

- 25-176 Dielectric Spectroscopy of Transition Metal-Based Electrospun Nanofibers
ROMAISA FATIMA, M. Anis-ur-Rehman, Pakistan
- 25-177 Characterization and Wear Behaviour of Boronized Layer Deposited by Pack Boriding Process on HSLA Steels
Naveed Ahmed Siddiqui, Pakistan
- 25-181 Preliminary Biological Evaluation of Powder-Like Perovskite/Metal Oxide Nanocomposite Developed by a Facile Wet-Chemical Method
Sadia Gillani, Pakistan
- 25-185 Influence and Comparative Study of Patenting, Spheroidization and Quenching -Tempering Heat Treatment Routes on the Mechanical Properties and Ductility of AISI 1080 Wire
Zeeshan Siraj Deen, Dr. Imran Nazir, Sabah Zaman, Qadeer Ahmad, Dr. Shabbar Abbas, Pakistan
- 25-186 Evaluation of Over Temperature Exposure of HP Turbine Blade
Wareesha Hasan, Pakistan
- 25-188 Tailoring the Conductivity of Particle Embedded Nanofibers for Energy Storage Devices
Ureeba Fatima, M Anis-ur-Rehman, Waqar Mehmood, Pakistan
- 25-189 Tailoring Lanthanum Cerate Morphology Through Spraying Drying for High Temperature Applications
Sundas Aneel, M Luqman Ashraf, Nasir Abbas, Kasif Naseem, Pakistan
- 25-190 Enhancing Conventional Brazing Technology for Ceramic-Metal Joining by Using Pure Silver as Braze Filler.
Sundas Aneel, Nasir Abbas, M.Luqman Ashraf, Pakistan
- 25-194 Surface Enhancement of Aluminum Alloy Al 5083 with MgO Embedding Via Friction Stir Processing and Its Mechanical Characterization for Advanced Applications
Muneeb Hussain, Waseem Amin, Rohail Usman, Muhammad Abdullah Ghous, Muhammad Asif Hussain, Khizar Saeed, Aqil Inam, Kabeer Raza, Pakistan

25-197 Electrical and Electrochemical Studies of
NiO;NiCo₂O₄/CNT Composites for Energy Storage
Applications

Hira Sultan, Haider Ali, M Anis-ur-Rehman, Pakistan

17:15-17:25 Ice Cream

Session-13 (Main Hall)

Wednesday, October 29, 2025 Time 09:00-10:40

Chairperson: Dr Metin Ozgul & Dr Tahir Irfan Khan

09:00 25-57 KN Novel Metal Lattice Structures Manufactured by 3D
Printing for Biomedical and Aerospace Applications

Abdul Khaliq, Saudi Arabia

09:40 25-68 Impact of Metal Powders; Characteristics on the Quality
of Additive Manufacturing Parts

Raja Khan, United Kingdom

10:00 25-140 Synthesis of Al-Cu-Fe-Ag Quasicrystals Based Activated
Surfaces for Contact Killing Applications

Asifa Kusar, Pakistan

10:20 25-121 Donor Flexible Spectator Ligands Anchored Pd (II) as
Electrocatalysts for CO₂ Reduction

Muhammad Naveed Zafar, Pakistan

10:40-
11:00 Tea Break

Session-14 (Room 108)

Wednesday, October 29, 2025 Time 09:00-10:40

Chairperson: Dr Delaver Hussain Anjum & Dr Shaikh Mohiuddin

09:00 25-223 KN MoSi₂N₄-Based 2D Heterostructures: Advancing
Photocatalytic Water Splitting and Sustainable Energy
Applications

Abdul Jalil, Pakistan

09:40	25-50	KN	Carbon Nanofiller-Based Thermal Interface Materials for High-Performance Electronics and AI Applications <i>Mohsin Ali Raza, Pakistan</i>
10:20	25-122		Molecularly Imprinted Polymer-Integrated HPLC Columns and Smart Syringes for Selective Purification of Pharmacologically Active Compounds from Plants <i>Muhammad Imran Malik, Pakistan</i>
10:40-11:00			Tea Break

Session-15 (Main Hall)

Wednesday, October 29, 2025 Time 11:00-12:40

Chairperson: Dr Abdul Khaliq & Dr Wei Lei

11:00	25-184	KN	Production and Shaping of Advanced Materials Through Energetic Reactions <i>Onuralp Yücel, Turkey</i>
11:40	25-262	KN	The Importance of Biomaterials to Improve the Health Care Facilities in Pakistan <i>Muhammad Attiq Ur Rehman, Pakistan</i>
12:20	25-51		Crystallinity of Graphite Particles formed in Graphitic Steel <i>Dr. Aqil Inam, Pakistan</i>
12:40-14:00			Lunch Break

Session-16 (Room 108)

Wednesday, October 29, 2025 Time 11:00-12:40

Chairperson: Dr Mohsin Ali Raza & Dr Raja Khan

11:00	25-118	VL	2D Materials for Photovoltaics: Our Story So Far <i>Mike Tebyetekerwa, Australia</i>
11:40	25-59	VL	Diffusion Effects on Heterogeneous and Homogeneous Phase Separation in Solids. <i>Michael Sorokin, Russia</i>
12:20	25-3	KN	Probing Structure Property Relationships in Materials Using Advanced Electron Microscopy

12:40-14:00

Lunch Break

Session-17 (Poster Competition)

Wednesday, October 29, 2025 Time 14:00-15:40

- | | |
|----------|--|
| FFMP-123 | Inadequate Tempering and Geometric Stress Concentration Leading to Receiver Failure
<i>Waseem Arshad, Nadeem Sultan, Anjum Tauqir, Pakistan</i> |
| FFMP-124 | Diagnosing Chloride-Driven Stress Corrosion Cracking in Inlet Piping: Evidence and Remedies
<i>Waseem Arshad, Umer Rasheed, Anjum Tauqir, Pakistan</i> |
| FFMP-125 | 475C Embrittlement in AISI 410S: Root-Cause Analysis and Recommendations
<i>Obaid Ur Rauf, Umer Rasheed, Anjum Tauqir, Pakistan</i> |
| FFMP-126 | Investigation of Premature Pipeline Spool Failure in Multiphase Oil and Gas Service
<i>Obaid Ur Rauf, Talha Anees, Anjum Tauqir, Pakistan</i> |
| FFMP-127 | Carburization and Micro-Cracking in Refinery Air Inlet Piping: Causes and Remedies
<i>Waseem Arshad, Mirza Qasim Shehzad, Anjum Tauqir, Pakistan</i> |
| FFMP-128 | Root Cause Failure Analysis of an Oxygen Charging Valve Connector in Aircraft Systems
<i>Obaid Ur Rauf, Muhammad Noman, Anjum Tauqir, Pakistan</i> |
| FFMP-146 | Metallurgical Analysis on Fracture Behaviour of Various Copper Alloys During Hot Working.
<i>Talha Ahmed, Awais Raza, Khalid Mahmood, Dr. Wali Muhammad, Dr. Syed Shabbar Abbas Rizvi, Pakistan</i> |
| FFMP-171 | Failure Analysis of Accessory Drive Housing Shaft Gear and Bearing (C-130 Aircraft)
<i>Madiha Nazir, Pakistan</i> |
| FFMP-182 | Failure Investigation, Improving mechanical strength of Al-Si cast alloy via microstructural and compositional optimization
<i>Muhammad Awais Raza, Kamran Yaseen, M Farooq, Khalid Mehmood, Ahnaf Usman, Shabbar Abbas Rizvi, Pakistan</i> |

FFMP-187	Failure Analysis of 3D Printed Rotor Turbine of Turbojet Engine <i>Wareesha Hasan, Pakistan</i>
FFMP-192	Failure Analysis of Bearing Cover Assembly <i>Muhammad Awais Raza, Pakistan</i>
FFMP-193	Failure Analysis of Pressure Regulator Assembly Component <i>Muhammad Awais Raza, Pakistan</i>
FFMP-217	Failure Analysis of the Adaptor Assembly of Starter Generator of T37 Aircraft <i>Muhammad Awais Raza, Pakistan</i>
FFMP-232	Investigating Fatigue Failure of Pylon Spindle Screw of an Aerojet <i>Muhammad Awais Raza, Qadeer Ahmad, Imran Nazir Qureshi, Shabbar Abbas Rizvi, Pakistan</i>
15:40-16:00	Tea Break

Session-18 (Main Hall)

Thursday, October 30, 2025 Time 09:00-10:40

Chairperson: Dr Amir Azam Khan & Dr Waheed Gul

09:00	25-207	KN	Molecular Structure and Mechanical Properties of Polymer Materials <i>Ersin Üresin, Turkey</i>
09:40	25-103	KN	Thermal Evaluation of Advanced Ablative Composites and Analysis of Space Shuttle Columbia Recovered Panel <i>Mohammad Bilal Khan, Pakistan</i>
10:20	25-109		Synergistic Influence of Fumed Silica on EPDM Elastomer Reinforced with Chopped UHMWPE Fibers for Hyperthermal Environment <i>Sadia Sagar, Pakistan</i>
10:40-			Tea Break

Session-19 (Room 108)

Thursday, October 30, 2025 Time 09:00-10:40

Chairperson: Dr Muhammd Imran Malik & Dr Attiq ur Rehman

- | | | | |
|-------------|--------|----|---|
| 09:00 | 25-86 | KN | High Energy Storage Density in Lead-Free Tetragonal Tungsten Bronze (TTB) Ceramics
<i>Fayaz Hussain, Pakistan</i> |
| 09:40 | 25-153 | | Tuning the Electrochemical Behavior of Iron Doped Nickel Oxide Based Graphene Composites Electrode towards Detection of Dopamine
<i>Hina Naeem, Pakistan</i> |
| 10:00 | 25-88 | | Electrophoretic Deposition of Yttrium Oxide: Process Optimization and Coating Characterization
<i>Rauf Shahzad, Pakistan</i> |
| 10:20 | 25-173 | | Enhancing Mechanical Characteristics of Aluminum Alloy AA2014 by Addition of Rare Earth Mischmetal
<i>Aamar Iqbal, Syed Walyat Hussain, Pakistan</i> |
| 10:40-11:00 | | | Tea Break |

Session-20 (Main Hall)

Thursday, October 30, 2025 Time 11:00-12:40

Chairperson: Dr Ersin Ursin & Dr Amjad Ali

- | | | | |
|-------|--------|----|---|
| 11:00 | 25-279 | KN | Quantum Materials Driving the Future of Quantum Technologies
<i>Yasemin Tabak, Turkey</i> |
| 11:40 | 25-229 | KN | Influence of Boron Doping on Electrical Properties in BNT-BT Lead-Free Piezoelectric Materials
<i>Metin Özgül, Turkey</i> |
| 12:00 | 25-278 | | Cathodic Performance Enhancement of Vanadium Tetra Sulfide (VS ₄) for Rechargeable Magnesium Batteries
<i>Muhammad Kashif Naseem, Pakistan</i> |
-

12:40-14:00

Lunch Break

Session-21 (Room 108)

Thursday, October 30, 2025 Time 11:00-12:40

Chairperson: Dr Fayaz Hussain & Dr Sadia Sagar

- | | | | |
|-------------|--------|----|---|
| 11:00 | 25-36 | KN | Accelerating the Discovery, Design and Characterization of Contaminated Materials
<i>Sakeena Javaid, Pakistan</i> |
| 11:40 | 25-28 | | A Novel Approach to Recycle W-Cu Composite Machine Turnings Scrap
<i>Muhammad Bilal Kashif, Pakistan</i> |
| 12:00 | 25-215 | | Investigating the Thermal Stability of TiTaNiCoZr Equimolar Refractory High Entropy Alloy
<i>M. Imran Khan, Pakistan</i> |
| 12:20 | 25-49 | | Hybrid Nanomaterial as Intelligent Seafood Freshness Indicator Film (CMC/ST/AgNP/RCE)
<i>Shaikh Mohiuddin, Pakistan</i> |
| 12:40-14:00 | | | Lunch Break |

Session-22 (Main Hall)

Thursday, October 30, 2025 Time 14:00-15:40

Chairperson: Dr M. Farooq & Dr Bilal Khan

- | | | | |
|-------------|-------|----|--|
| 14:00 | 25-4 | KN | Advanced Surface Passivation Techniques for Quantum Dots Using Bulk-Heterojunction Architectures
<i>Muhammad Sulaman, Chuanbo Li, Honglian Guo, China</i> |
| 14:40 | 25-40 | | Synthesis and Characterization of Pitch Based TiB ₂ -Carbon Composites for Inert Cathode Applications in Aluminium Electrolysis
<i>Shahid Akhtar, Norway</i> |
| 15:00 | 25-56 | KN | Radar Absorbing Materials for Stealth Applications - A Comprehensive Review
<i>Amjad Ali, Pakistan</i> |
| 15:40-16:00 | | | Tea Break |

Session-23 (Room 108)

Thursday, October 30, 2025 Time 14:00-15:40

Chairperson: Dr Yasemin Tabak & Dr Yasir Khan

- | | | | |
|-------------|--------|----|--|
| 14:00 | 25-216 | VL | EPR Spectroscopy on Radiation Detection Materials: a Story of Traps and Activators
<i>Henk Vrielinck, Belgium</i> |
| 14:40 | 25-277 | VL | Green Tribology: Status and Perspectives
<i>Mitjan Kalin, Slovenia</i> |
| 15:20 | 25-228 | VL | Metal-Organic Frameworks: Catalyzing the Future of Biomass Transformation
<i>Eduardo Schott, Chile</i> |
| 15:40-16:00 | | | Tea Break |

Session-24 (Poster-02)

Thursday, October 30, 2025 Time 16:00-17:15

- | | |
|--------|---|
| 25-191 | Enhancement of Mechanical Properties and Microstructural Improvement of Investment Cast Inconel 718 through Optimized Heat Treatment
<i>Muhammad Maaz Zafar, Khalid Mehmood, Shabbar Abbas Rizvi, Pakistan</i> |
| 25-195 | Bismuth Oxybromide Nanoparticles Synthesis and Characterization for Anti-Cancer Applications
<i>Rabbia Sani, Muhammad Asif Hussain, Hamid Saeed, Kabeer Raza, Aqil Inam, Adnan Maqbool, Pakistan</i> |
| 25-196 | Electrochemical Performance of Novel Poly (O-Toluidine) Based Transition Metal Oxide Nanocomposites as Efficient Energy Storage Materials for Supercapacitors
<i>Mohammad Sohail, Rizwan Ullah, Pakistan</i> |
| 25-198 | Layered Double Hydroxide-Based Membranes for Advanced Water Treatment
<i>Farhat Saira, Pakistan</i> |

- 25-199 Effect of Nickel Ferrite on the Mechanical and Electromagnetic Shielding Performance of Graphene Oxide-Reinforced Woven Carbon Fiber Epoxy Composites
Mohammad Ahmer Ejaz, Mohsin Ali Raza, Pakistan
- 25-200 Comparative Study of Manganese and Cobalt Oxides and Phosphates: AC Electrical and Electrochemical Performance for Energy Storage Applications
Haider Ali, Dr. Muhammad Anis ur Rehman, Pakistan
- 25-201 Synthesis and Characterization of Iron Oxide Nanoparticles Decorated Metal-Organic Framework for Enhanced Drug Delivery Systems
Bahroz Rashid, Tehmina Azam, Hadia Riaz, Waheed Miran, Zakir Hussain, Sumera Khizar, Xizi Long, Usman Liaqat, Pakistan
- 25-202 Structure and Properties of High Entropy Bulk Metallic Glass Composite
Ahmad Saeed, Murtaza Khan, Syed Zameer Abbas, Rashid Ali, Abdul Wadood, Pakistan
- 25-203 Influence of Rare Earth Doping and GO Integration on the Supercapacitor Behavior of Cobalt Ferrite
Samia Sadaqat, Waqar Mahmood, Muhammad Anis-ur-Rehman, Pakistan
- 25-204 Cobalt Doped Birnessite Magnesium Manganese Oxide as High-Performance Cathode Material for Hybrid Supercapacitor Application
Muhammad Umair Idrees, Pakistan
- 25-209 Effect of Temperature on Dielectric and Electrical Properties of Manganese Doped Co-Zn Ferrites
Haroon Mazhar, Muhammad Anis-ur-Rehman, Pakistan
- 25-210 Rare Earth Doped Cobalt Ferrite: Sol-Gel Approach to Enhance Transport Properties for Electronic Applications.
Haroon Mazhar, Muhammad Anis-ur-Rehman, Pakistan
- 25-211 Optimization of Electron Beam Welding Parameters of Austenitic 321-Type Stainless Steel
Fakhar Alam Zeb, Hussain Imran Jaffery, Pakistan

- 25-212 Facile Synthesis and Transport Properties in Rare Earth Co-Doped Co-Zn Nanoparticles
Aniqa Arshad, Anees-ur-Rehman, Pakistan
- 25-213 Microstructure Evaluation of High Strength Bainitic Steel and Development of Heat Treatment Process to Achieve the Mechanical Properties Required for Flow Forming Process
Abdul Muiz, Muhammad Mudassar Rauf, Naveed Ahmed Siddiqui, Dr. Syed Shabbar Abbas Rizvi, Pakistan
- 25-214 Synergistic Role of Thermomechanical Processing and Alloying in Enhancing Fe-B Microstructure and Properties of Fe-B Alloys
Tajamul Khan, Muhammad Moaaz Zafar, Khalid Mehmood, Pakistan
- 25-218 Examination of Magnetic Domains by Iron Nano Particles Using Metallography Technique
Wareesha Hasan, Pakistan
- 25-219 Effect of Cold Working and Heat Treatment Variations on the Microstructural Evolution and Mechanical Properties of 15-5 PH Stainless Steel
Muhammad Maaz Zafar, Khalid Mehmood, Talha Ahmed, Dr Shabbar Abbas Rizvi, Pakistan
- 25-220 Synthesis and Characterization of Graphene - Manganese Oxide (MnO₂) Nanorods Composite for High Performance Super Capacitor
Bahroz Rashid, Ghulam Fareed, Ehsan Pervaiz, Pakistan
- 25-221 Rare Earth Doped Cobalt Ferrite: a Sol-Gel Approach to Enhance Transport Properties for Re-RAM Applications
Haroon Mazhar, Muhammad Anis-ur-Rehman, Pakistan
- 25-222 Ce-Doped Zn-Co Ferrite with Tunable Electrical Properties for High-Temperature Applications
Haroon Mazhar, Muhammad Anis-ur-Rehman, Seher Attique, Pakistan
- 25-224 A Brief Study of the Enhanced Structural and Electrical Properties of Samarium-Doped Cobalt Ferrite Nanoparticles for Potential Resistive RAM Applications
Halima Ramzan, Ayesha Saif, Muhammad Anis-ur-Rehman, Pakistan

- 25-226 Optimization of Pulsed Nd:YAG Laser Welding Parameters for Ultra-Thin Austenitic Stainless Steel Sheets (AISI 304): Microstructure and Mechanical Performance
Dr. Shahroz Sakhawat, Pakistan
- 25-227 Micro-Plasma Arc Welding of 0.5 Mm Ultra-Thin 304L Stainless Steel Sheets: Effect of Welding Current on Distortion, Microstructure, and Mechanical Properties
Dr. Shahroz Sakhawat, Pakistan
- 25-230 Synergistic Effect of MnCo₂O₄ Spinal and Ti₃C₂T_x MXene
Arif Ullah, Pakistan
- 25-231 Transition Metal Selenides: a Pathway to High-Energy and High-Power Hybrid Supercapacitors
Anique Ahmed, Muhammad Ramzan Abdul Karim, Muhammad Usman, Pakistan
- 25-233 Room Temperature 3D Printing of Tantalum Oxide Scaffold: an Initial Study on Rheology, Printability and Textural Properties
Mian Sami Mudassir, Muhammad Atiq ur Rehman, Syed Muneeb Haider Gillani, Pakistan
- 25-234 Preparation and Characterization of Liposomes Loaded with Phenolic Extract of Zingiber Officinale
Sheeraz, Sana Naseer, Pakistan
- 25-235 Synthesis of copper oxide nanoparticles from leaves of Citrus sinuses and use as Nano fertilizer for the growth of Capsicum annum
Dr Sadaf Anwaar, Pakistan
- 25-236 Direct Ink Write 3D Printed Polyether-Ether Ketone/Sodium Alginate Scaffolds Coated with Ag-Sr Doped Hydroxyapatite for Potential Dental Tissue Engineering Applications: a Detailed In-Vitro Analysis
Syed Muneeb Haider Gillani, Muhammad Atiq Ur Rehman, Pakistan

- 25-237 Multilayer Architecture for Enhanced Adhesion and Tribological Performance of Magnetron-Sputtered MoS₂ Coatings
Abdul Raheem Sufyan, Haider Ali Ansari, Dr. Asad Ali Dilawary, Pakistan
- 25-238 Flow-Induced Scaffold Formation and Surface Enhancement in Ionomer-Modified Polyethylene Blown Films
Dr. Sarmad Ali, China
- 25-239 Adsorption-Engineered Graded Coating Directs Uniform LiF-Rich SEI Throughout Robust Si/C Anodes
Dr. Nian Li, China
- 25-241 Lanthanum-Substituted Mn-Zn Ferrites: Structural, Dielectric and Electrical Properties for High Frequency Applications
Haroon Mazhar, Muhammad Anis-ur-Rehman, Sumaira Komal, Pakistan
- 25-243 A Study on Structural, Electrical and Optical Properties of Gallium Doped Cobalt Ferrite Nanoparticles Synthesized Via. Sol-Gel Method
Sadia Kousar, Dr. M. Anis-ur-Rehman, Pakistan
- 25-245 Correlation of Structural and Electrical Properties of Gadolinium-Substituted Cobalt Ferrites for Data Storage Applications
Marjan Asif, Maryum Aftab, M. Anis-ur-Rehman, Pakistan
- 25-246 Optimizing Melting Practice and Multi-Pass Cold Drawing for Manufacturing of High-Leaded Brass (Cu-Zn-Pb) Functional Wire
Muhammad Farooq Iqbal, Talha Ahmed, Ahnaf Usman, Shabbar Abbas Rizvi, Pakistan
- 25-247 Particles Embedded Electrospun Nanofibers for Soft Electronics
Esha Faisal, Haider Ali, Ambreen Zahra, Haroon Mazhar, M. Anis ur Rehman, Pakistan
- 25-248 Rare-Earth Modified Cobalt Ferrites Driving Next-Generation Structural and Electrical Performance
Maryum Aftab, Marjan Asif, M. Anis-ur-Rehman, Pakistan

- 25-249 Synthesis / Characterization of Perovskite Ceramics for Different Electronic Applications
Syed Muhammad Maqsood Ali Naqshbandi, Muhammad Hassan Khalid, Pakistan
- 25-250 Gd-Doped Cobalt Ferrites: Linking Nanostructure to Next-Generation Resistive Memory
Marjan Asif, Maryum Aftab, M. Anis-ur-Rehman, Pakistan
- 25-251 Rare-Earth Modified Cobalt Ferrites Driving Next-Generation Structural and Electrical Performance
Maryum Aftab, M. Anis-ur-Rehman, Marjan Asif, Pakistan
- 25-252 Humidity Sensing Using Molybdenum-Doped Aluminum Oxide/ Reduced Graphene Oxide Composite Material
Ruqaiya Shahzad, Dr. Waqar Mehmood, Dr. Zahid Imran, Pakistan
- 25-253 Synthesis, Characterization and Photocatalytic Activity of Cerium (Ce) Metal Based Metal Organic Frameworks
Deena Rani, Mohammad Sohail, Pakistan
- 25-254 A Study on the Effect of Bioactive Glass and Hydroxyapatite-Loaded Xanthan Dialdehyde-Based Composite Coatings for Potential Orthopedic Applications
M. Haseeb Nawaz, Pakistan
- 25-255 Development and Characterization of Biomimetic Materials via Sol-Gel Method
Aiman Akram, Aleena, Summaiya Saqib, Pakistan
- 25-256 Synthesis and Characterization of Ceria Doped Silica Nanoparticles Through Chemical and Green Method for Gas Sensor Application
Syeda Sarah Zehra Zaidi, Syed Muhammad Mohsin, Pakistan
- 25-257 Synthesis, Characterization, Electrochemical and Photocatalytic Performance of Cerium-Titanium Based Bimetallic Metal Organic Frameworks (BMOFs)
Mohammad usman, Deena Rani, Pakistan
- 25-258 Green Synthesis and Characterization of Date Seed Extract Mediated Strontium Carbonate Nanoparticles for Effective Curcumin Loaded Drug Release
Qurat-ul-ain Arif, Waheed Miran, Aneela Javed, Usman Liaqat, Pakistan

- 25-259 Structural and Electrical Transport Properties of Transition Metal Oxide Composite with CNTs
Ruqia Masroor, Muhammad Anis-ur-Rehman, Pakistan
- 25-260 Sustained Linalool Releasing PVA/Gellan Gum Hydrogel for Infectious Burn Wounds: Characterized In-Vitro
Fahad Rashid, Pakistan
- 25-261 PVP@rGO Nanocomposites with Tunable Optical-Electrical Coupling for High-Performance Photodetectors
Muhammad Sulaman, Ammarah Afzal, China
- 25-263 Tailoring NiCoMn Metal Organic Frameworks Performance Using Multiwalled Carbon Nanotubes for Supercapacitor Applications
Areeba Sajid, Daniyal Ahmed Shaikh, Jawad Jawaid, Mohsin Ali Marwat, Pakistan
- 25-264 Electron Beam Welding of Dissimilar Metals
Fakhar Alam Zeb, Pakistan
- 25-265 Numerical Simulation and Efficiency Optimization of Novel N-I-P Planner Structure of Triple Cation Perovskite with PEDOT:PSS+WO₃ Nanoparticles Composite as Hole Transport Layer
Irshad Ali, Shanza, Syed Azkarul Hasan, Haleema Sadia, Lyba Siddiqui, Pakistan
- 25-266 Experiment-Anchored SCAPS-1D Design of CsPbIBr₂/Cs₂CuSbCl₆ Tandems: Thickness-Defect Synergy, Band Alignment, and Interface Limits
Lyba Siddiqui, Irshad Ali, Haleema Sadia, Syed Azkar Ul Hasan, Shanza Rehan, Pakistan
- 25-267 Remaining Life Assessment of Service Exposed Turbine Blades via Microstructure Evaluation
Madiha Nazir, Sabah Zaman, Pakistan
- 25-269 Microwave Assisted Synthesis of NiCoCu-MOF for Energy Storage Applications.
Muhammad Arqam Karim, Muhammad Ramzan Abdul Karim, Anique Ahmed, Pakistan
- 25-270 Degradation Study of Carbon Filled Ethylene Propylene Diene Monomer (EPDM) Rubber

Sumaira Naz, Hassan Waqas, Abdul Basit, Pakistan

- 25-271 Synthesis of Hexagonal Nanoferrite Magnetic Material: a Novel Electrochemical Platform for Caffeine Sensing in Beverages

Sajjad Hussain, Pakistan

- 25-272 Development of Therapeutic Ions Loaded Oxidized Guar Gum and Sodium Alginate-Based 3D Printed Biomimetic Scaffolds Investigated In-Vitro and In-Vivo for Burn Wound Repair

M. Haseeb Nawaz, Pakistan

- 25-273 Structural and Magnetic Optimization in Ba₂Bi (9-x)Fe(5+x)Ti₈O₃₉ : a Study of Tetragonal Tungsten Bronzes

Sajida Sheikh, Pakistan

- 25-274 Synthesis and Electrochemical Studies of Zinc-Vanadate-CNTs Nanocomposites for Energy Storage Devices

Nohman Saleem, Muhammad Tariq Jan, Amna Safdar, Syed Mustansar Abbas, Pakistan

- 25-276 Microstructural Improvement and Mechanical Strength Enhancement of AA 6082 Aluminum Alloy Through Advanced Extrusion Cooling and Heat Treatment Strategies

Nouman Zubair, Usman Waheed, Wali Muhammad, Shabbar Abbas, Pakistan

- 25-280 Synthesis, Characterization and Anticancer Activity of New Heteroleptic Palladium (II) Compounds

Hamid Nawaz, Ahnaf Usman Zillohu, Muhammad Farooq Iqbal, Rizwan Khan, Shabbar Abbas Rizvi, Pakistan

- 25-281 Synthesis, Characterization, Biological Screening and Interaction with Calf Thymus DNA of Schiff Base (N1E,N2E)-N1,N2-Dibenzylideneethane-1,2-Diamine

Hamid Nawaz, Ahnaf Usman Zillohu, Muhammad Farooq Iqbal, Rizwan Khan, Wali Muhammad, Shabbar Abbas Rizvi, Pakistan

- 25-282 Temperature Dependent Impedance Spectroscopy of Ce Substituted Spinel Cobalt Ferrites

M Kamran, Sadia Kousar, Haroon Mazhar, M Anis-ur-Rehman, Pakistan

25-283 Temperature and Frequency Dependence of Transport Properties in Gadolinium Substituted Cobalt Ferrite
M Kamran, Sadia Kousar, Haroon Mazhar, M Anis-ur-Rehman, Pakistan

17:15-17:25 Ice Cream

Session-25 (Main Hall)

Friday, October 31, 2025 Time 09:00-10:40

Chairperson: Dr Shaheed Khan & Dr Atilla Evcin

09:00 25-144 KN Recent Developments in Stabilization of Perovskite Solar Cells (PSCs)
Nadia Shahzad, Pakistan

09:40 25-143 KN Study of Ion Migration in Perovskite Solar Cells
Muhammad Sultan, Pakistan

10:20 25-180 Role of Metallic Binders in Advancing NbC Cermets for Engineering Ceramic Applications
Abdul Basit, Pakistan

10:40-11:00 Tea Break

Session-26 (Room 108)

Friday, October 31, 2025 Time 09:00-10:40

Chairperson: Dr Aamir Nusair & Dr Khalid Shah

09:00 25-64 KN Advanced Sensing Platforms Based on Polymer-Metal Nanocomposites with AI-Driven Mobile Interfaces
Muhammad Imran Malik, Pakistan

09:40 25-155 Structural and Electrical Insights of Ceria-Based Electrolyte Materials for SOFCs
Hafiz Zain Ul Abideen, Pakistan

10:00 25-108 Crosslinked Gelatin-Based Hydrogel Incorporated with Clay for Drug Release Applications
Sadia Sagar, Pakistan

10:20 25-106 Exploring the Potential of Green Synthesized
Sr_{0.8}Ce_{0.2}Fe_{0.8}Co_{0.2}O₃ Using Orange and Lemon
Extracts for Hybrid Supercapacitor Applications
Dr. Mohsin Ali Raza, Pakistan

10:40-11:00 Tea Break

Session-27 (Main Hall)

Friday, October 31, 2025 Time 11:00-12:40

Chairperson: Dr Muhammad Mujahid & Dr Mohsin Ali

11:00 25-208 KN Electrospinning Technique for Nanofiber Production:
Fundamentals, Properties and Applications
Atilla Evcin, Turkey

11:40 25-206 KN Research on High-Energy Beam-Induced 3D Graphene
Monoliths and their Electrode
Zhenyang Wang, China

12:20 25-178 Innovative Heteroleptic Ru(II) Photosensitizers for
Efficient Dye-Sensitized Solar Cells
Saba Ashraf, Pakistan

12:40-
1400 Lunch Break

Session-28 (Room 108)

Friday, October 31, 2025 Time 11:00-12:40

Chairperson: Dr Imran Malik & Dr Hamid Zaigham

11:00 25-84 KN Elucidating the Underlying Mechanism of Bead Formation
for Laser Welding, Gas Metal Arc Welding, Laser-Arc
Hybrid Welding and Friction Stir Welding
Dr. Muhammad Sohail, Pakistan

11:40 25-34 Detection and Characterization of Natural Defects in
Welded Steel Plates and Forgings

Muhammad Kamran Shoukat, Pakistan

12:00	25-60	Microstructure, Composition and Mechanical Properties of Laser Welded Nitinol Joint <i>Qazi M. Yaseen, Pakistan</i>
12:20	25-244	Investigation into Electron Beam Welding of Inconel 718 <i>Fakhar Alam Zeb, Pakistan</i>
12:40-14:00		Lunch Break