

Dr. RAKESH KUMAR PANDEY

Associate Professor, Department of Chemistry,
Mahatma Gandhi Central University, Chanakya Parisar,
Zila School Campus, Motihari
District- East Champaran, Bihar, 848401, India
Email: rakeshpandey@mgcub.ac.in, pandeyrake@gmail.com
Date of Birth: 20-Sept-1982



Website: <https://sites.google.com/site/rakeshkpandeycv/home?pli=1>

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EDUCATION

Doctorate (Ph.D.): Raman Research Institute (RRI), Bangalore (India), Thesis submitted in July 2010 to Jawaharlal Nehru University (JNU), New Delhi (India)

Thesis Title: *Electron transfer and electrocatalytic studies on some organic and conducting polymer nanocomposite thin films*

Master of Science: First class, S. S. J. Campus Almora, Kumaun University, Nainital, Uttarakhand, India, 2004, *Physical Chemistry (College Topper in Physical Chemistry)*

Bachelor of Science: First class, S. S. J. Campus Almora, Kumaun University, Nainital, Uttarakhand, India, 2002

RESEARCH INTERESTS

Expertise in the following fields: Materials science, electrochemistry, fuel cells, electrocatalysis, electroanalytical chemistry, nanocomposites, metallic nanowires, conducting polymers, contact electrification (static electricity), supercapacitors, organic-metallic hybrid materials, metallo-supramolecular polymers, polymer thin films, polymer thin film devices, nanomaterials synthesis, scanning probe microscopy such as STM and AFM, LB trough handling for thin film preparation, surface science, *I-V* characteristic of polymer films, etc.

TECHNICAL KNOWLEDGE

Experimental techniques:

1. Hands-on experience with various electrochemical techniques such as cyclic voltammetry, chronopotentiometry, chronoamperometry, Electrochemical impedance spectroscopy, and Electrochemical quartz crystal microbalance (EQCM), etc.
2. Spectroscopic techniques such as UV-Vis spectroscopy, Photoluminescence spectroscopy, X-ray photoelectron spectroscopy (XPS), XRD, and FTIR spectroscopy, and Ellipsometry.
3. Surface probe techniques such as Scanning Tunneling Microscopy (STM), Atomic Force Microscopy (AFM), etc. Working experience with electron microscopes such as Scanning Electron Microscope (SEM) and Transmission Electron Microscope (TEM).

RESEARCH and ACADEMIC EXPERIENCE

I have several years of post-PhD experience, and a majority of this period is spent in Japan at various top-reputed institutions.

1: Raman Research Institute (RRI), Bangalore, India, Post PhD-RA **Aug 2010 to May 2011**

2: Kyushu Institute of Technology (KIT), Kitakyushu, Japan, **Sep to Dec 2011**

- 3: NIMS post-doctoral researcher** at National Institute for Materials Science (NIMS), Tsukuba, Japan, **June 2011 to May 2013**
- 4: JSPS-Post Doctoral Researcher**, National Institute for Materials Science (NIMS), Tsukuba, Japan, **June 2013 to May 2015**
- 5: NIMS senior post-doctoral researcher**, NIMS, Tsukuba, Japan, **June 2015 to December 2016**
- 6: Assistant Professor/Researcher**, Global Excellence program at National University of Singapore (NUS) and Department of Macromolecular Science and Technology, Kyoto Institute of Technology, Kyoto, Japan. **January 2016-Aug 2019**
- 7. Associate Professor**, Amity Institute of Integrative Sciences and Health, Amity University, Gurugram, Manesar, Haryana, India. **Sep 2019-Nov 2019**
- 8. Associate Professor**, Department of Chemistry, Mahatma Gandhi Central University, Motihari (East-Champaran), Bihar, India, **Nov 2019 Onwards**
- 9. PhD student guided:** 3 (1 submitted and 2 ongoing), and 2 (Project assistants guided under DST-SERB grant)
- 10. Master's Thesis Guided:** 11 students graduated, and 2 are Ongoing

ADMINISTRATIVE EXPERIENCE

- 1:** Member Board of Studies for Chemistry and Physics, Mahatma Gandhi Central University, Motihari, Bihar: 2019 onwards
- 2:** Member Stock verification committee, Mahatma Gandhi Central University, Motihari, Bihar: 2021
- 3:** Co-Convener of the 1st International conference on frontier areas of Chemistry (1st ICFAC) 2020
- 4:** Member Secretary, Research and Development Cell, Mahatma Gandhi Central University, Motihari, Bihar: 2022 onwards
- 5:** Associate Controller of Examination, Mahatma Gandhi Central University, Motihari, Bihar: 2022 onwards
- 6:** Member of the Sports Board, Mahatma Gandhi Central University, Motihari, Bihar: 2024 onwards

HONORS & AWARDS

- 1:** Best presentation prize 2014 NIMS conference, 1-3rd July, Tsukuba, Japan, **2014**
- 2:** JSPS post-doctoral fellowship (**Japan Society for the Promotion of Science**), **2013**
- 3:** JENESYS exchange fellowship (**Japan East Asia Network of Exchange of Students and Youths**), RRI India and Kyutech, Japan, **2010**
- 4:** Best presentation prize 15th National Seminar on Physics and Chemistry of Sensors (15th NSPTS), Pune University, **2010**
- 5:** Highest marks in MSc (Physical Chemistry) SSJ Campus, Kumaun University, Batch of 2004, **2004**
- 6.** Invited talks at the 6th and 7th **KIT international symposium** on advanced polymer materials and fiber science, Kyoto Institute of Technology, Kyoto, Japan, in **Sep 2016** and **Mar 2017**
- 7.** Membership of The Electrochemical Society (ECS), Chemical Society of Japan (CSJ), Society of Polymer Science Japan (SPSJ), and The Electrochemical Society of Japan (ECS-J)

RESEARCH GRANTS

- 1:** JSPS post-doctoral fellowship (**Japan Society for the Promotion of Science**), **2013-2015**
Research grant of 2.4 million JPY (equivalent to ~INR 16 lacs).
- 2:** **DST-SERB** Core Research Grant of ~40 lacs Rs in 2021.

ALL PEER-REVIEWED RESEARCH PUBLICATIONS

Peer-Reviewed Scientific Publications of Dr. Rakesh K. Pandey in Journals indexed in Web of Science, Thomson-Reuters (Clarivate Analytics)

Research Theme: Exploring multifaceted approaches in nanomaterials and electrochemical systems to revolutionize energy storage and generation aimed at sustainable applications.

- **In-situ formed Mo and Cu-based Metal-Oxide-Nitride (MoxOyNz and CuxOyNz) Systems for Efficient Hydrogen Evolution Reactions**
Materials Letters, **2025**, 396, 138721. R. Pushpalatha, M. P. Ravikumar, M. Kumara K S, P. Shivakumar, S. Mahima, **Rakesh K. Pandey**, Sakar Mohan, D. H. Nagaraju
- **Morphology-controlled Ag modified mixed valent manganites as a supercapacitor electrode material with adequate energy, power density, and large capacity retention**
Journal of Alloys and Compounds, **2025**, 1218, 182323. P. Biswas, A. Sharma, S. Rao, Y. Kashyap, M. Kumara K. S., Anand Prakash, **Rakesh K. Pandey**, et al.
- **Electron rich triazine based covalent organic framework as aqueous electrolyte symmetric supercapacitor**
Chemical Communications, **2025**, Article D5CC01105A.
Divya Nain, Ravi Rajan Panday, Shahjad Ali, Md Ehesan Ali, Sarita Kalla, **Rakesh K. Pandey***, Ritambhara Jangir*
- **Exploring the Role of Exfoliation Mediums on Electrochemically Derived Graphene for Enhanced Supercapacitor Performance**
Carbon Letters, **2025**, Article 00909-3. R. R. Pandey, A. Andola, H. Pandey, **Rakesh K. Pandey***
- **Recycled Battery Materials for Green and Sustainable Series and Parallel Microbial Fuel Cell Stacks**
ACS Sustainable Resource Management, **2025**, Article 5c00057. R. R. Pandey, A. Andola, H. Pandey, Y. Kashyap, A. Prakash, **Rakesh K. Pandey***
- **Emerging frontiers in microbial fuel cell technology for sustainable energy generation**
J. Solid State Electrochemistry, **2024**. <https://doi.org/10.1007/s10008-024-06167-z>
Himani Pandey, Ravi Ranjan Pandey, Anshu Andola, Anand Prakash, **Rakesh K Pandey***
- **Potential Pulse Sequences for Defect-Controlled Electrochemical Graphene Exfoliation**
Emergent Materials, **2024**. <https://doi.org/10.1007/s42247-024-00866-z>
Ravi R. Pandey, H. Pandey, A. Andola, Y. Kashyap, H. Nakanishi, **Rakesh K. Pandey***
- **GO and g-C3N4 as synergistic additives in SnS2-MoS2 Hybrid Nanocomposites for Photocatalytic and Electrochemical Applications: A Detailed Study**
Emergent Materials, **2024**. Neha, Anshu Andola, Ravi R Pandey, Rakesh K Pandey, P Rambabu, Pradip Das, Iqra Rabani, GR Turpu
- **Studies into the Synergy Between MoS2-rGO-gC3N4 for Photocatalytic and Supercapacitor Applications**
Journal of Electronic Materials, **2024**. Neha, Anshu Andola, Ravi R Pandey, Rakesh K Pandey, P Rambabu, Pradip Das, Iqra Rabani, GR Turpu
- **Solid State Responses of Electrochemically Deposited Polyaniline and Polypyrrole based Symmetric Supercapacitors in Different pH Conditions**
J. Solid State Electrochemistry, **2024**, 28, 3357. Y. Kashyap, Pushpalatha, R., R. R. Pandey, A. Andola, D. H. Nagaraju, **Rakesh K. Pandey***
- **Flexible Linker-based Triazine-functionalized 2D Covalent Organic Frameworks for Supercapacitor and Gas Sorption Applications**
ACS Applied Materials & Interfaces, **2024**, 11, 11605.
Y. Kumar, I. Ahmad, A. Rawat, **Rakesh K Pandey**, P. Mohanty, R. Pandey

- **Unlocking the Potential of Depleted Dry Batteries: A Dual-Purpose Approach for Waste Mitigation and Sustainable Energy Production**
J. Cleaner Production, **2024**, 457, 142430.
 Ravi Ranjan Pandey, Anshu Andola, Himani Pandey, Yashvant Kashyap, Anand Prakash, Hideyuki Nakanishi, **Rakesh K Pandey***
- **Core–Shell Ni/Ni(OH)₂ Nanowire Array for Asymmetric Supercapacitors**
ACS Applied Nano Materials, **2024**, 7, 1701.
 Anshu Andola, Ravi Ranjan Pandey, Yashvant Kashyap, Himani Pandey, Hideyuki Nakanishi, **Rakesh K Pandey***
- **Synergistic Effect of Nickel and Cobalt in Nanowire Array for High Energy Storage with Rapid Charge Transfer in Asymmetric Supercapacitor**
ChemistrySelect, **2023**, 8, e202302042.
 Ravi Ranjan Pandey, Anshu Andola, Yashvant Kashyap, Himani Pandey, Hideyuki Nakanishi, **Rakesh K Pandey***
- **Self-assembly of graphene oxide flakes for smart and multifunctional coating with reversible formation of wrinkling patterns**
Soft Matter, **2022**, 18, 3546-3556.
 X. Su, **Rakesh K Pandey**, J. Ma, W. C. Lim, C. K. Ao, C. Liu, H. Nakanishi, S. Soh
- **Selective Reduction Sites on Commercial Graphite Foil for Building Multimetallic Nano-Assemblies for Energy Conversion**
ChemistrySelect, **2020**, 5, 13269-13277.
Rakesh K. Pandey, S. Teraji, S. Soh, H. Nakanishi
- **The Relationship between Static Charge and Shape**
ACS Central Science, **2020**, 5, 704.
Rakesh K. Pandey, C. K. Ao, W. Lim, Y. Sun, X. Di, H. Nakanishi, S Soh
- **Graphite-Aligned Ni/(NiOH)₂ Nanowire-based Aqueous Asymmetric Supercapacitors Exhibiting Excellent Cycle Stability, High-Rate Performance, and Wide Operation Voltage**
ChemistrySelect, **2019**, 4, 12543-13550.
Rakesh K. Pandey, Y. Totake, S. Soh, H Nakanishi
- **Eco-Friendly, Direct Deposition of Metal Nanoparticles on Graphite for Electrochemical Energy Conversion and Storage**
ACS Applied Materials & Interfaces, **2019**, 11, 36525-36534.
Rakesh K. Pandey, L. Cheng, S. Teraji, H Nakanishi, S. Soh
- **Correlating material transfer and charge transfer in contact electrification**
J. Phys. Chem. C, **2018**, 122, 16154-16160.
Rakesh K. Pandey, H. Kakehashi, H Nakanishi, S. Soh
- **Electrochemical Charge Transfer Through the Supramolecular Discogen-DNA Hybrid Multi-layered Assembly**
ChemistrySelect, **2018**, 3, 5874-5882.
Rakesh K. Pandey*, H. Pandey, Alpana Nayak
- **Pd and Polyaniline Nanocomposite on Carbon Fiber Paper as an Efficient Direct Formic Acid Fuel Cell Anode**
Materials Research Express, **2018**, 5, 035518-7.
Rakesh K. Pandey*
- **Reversible and Continuously Tunable Control of Charge of Close Surfaces**
J. Phys. Chem. Lett., **2017**, 8, 6142-6147.
Rakesh K. Pandey, Yajuan Sun, Hideyuki Nakanishi, and Siowling Soh

- **Metal Nanowire-Based Hybrid Electrodes Exhibiting High Charge/Discharge Rates and Long-Lived Electrocatalysis**
ACS Applied Materials & Interfaces, **2017**, 9, 36350-36357.
Rakesh K. Pandey, S. Kawabata, S. Teraji, T. Norisuye, S. Miyata, H. Nakanishi, S. Soh
- **One-dimensional anhydrous proton conducting channels formation at high temperature in a Pt(II)-based metallo-supramolecular polymer and imidazole system**
ACS Applied Materials & Interfaces, **2017**, 9, 13406-13414.
Chanchal Chakraborty, U. Rana, **Rakesh K. Pandey**, Satoshi Moriyama, and Masayoshi Higuchi
- **Geometrically Isomeric Pt(II)/Fe(II)-Based Heterometallo-Supramolecular Polymers with Organometallic Ligands for Electrochromism and Electrochemical ON/OFF Switching of Photoluminescence**
J. Mater. Chem. C, **2016**, 4, 9428-9437.
Chanchal Chakraborty, **Rakesh K. Pandey**, Satoshi Moriyama, and Masayoshi Higuchi
- **Selective DNA Recognition and Cytotoxicity of Water Soluble Helical Metallo-supramolecular Polymers**
Bioconjug. Chem., **2016**, 27, 2307-2314.
Utpal Rana, Chanchal Chakraborty, **Rakesh K. Pandey**, Md. Delwar Hossain, Reiko Nagano, Takashi Minowa and Masayoshi Higuchi
- **Proton Conductive Nanosheets Formed by Alignment of Metallo-Supramolecular Polymers**
ACS Applied Materials & Interfaces, **2016**, 8, 13526-13531.
Rakesh K. Pandey, Utpal Rana, C. Chakraborty, and Masayoshi Higuchi
- **An insight into ion-conduction phenomenon of gold nanocluster ligand based metallo-supramolecular polymers**
J. Mater. Chem. A, **2016**, 4, 4398-4401.
Rakesh K. Pandey, C. Chakraborty, Utpal Rana, and Masayoshi Higuchi
- **Platinum(II)-Based Metallo-Supramolecular Polymer with Controlled Unidirectional Dipoles for Tunable Rectification**
ACS Applied Materials & Interfaces, **2015**, 7, 19034-19042.
C. Chakraborty, **Rakesh K. Pandey**, Md. Delwar Hossain and Masayoshi Higuchi
- **Nano Molar Detection of Cd(II) Ions by Luminescent Metallo-Supramolecular Polymer Formation**
J. Mater. Chem. C, **2015**, 3, 12186.
Md. Delwar Hossain, **Rakesh K. Pandey**, Utpal Rana, and Masayoshi Higuchi
- **Proton conduction in Mo(VI)-based metallo-supramolecular polymers**
Chem. Commun., **2015**, 51, 11012.
Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi
- **Effect of a three-dimensional hyperbranched structure on the ionic conduction of metallo-supramolecular polymers**
RSC Adv., **2015**, 5, 49224.
Rakesh K. Pandey, Md. Delwar Hossain, T. Sato, Satoshi Moriyama and Masayoshi Higuchi
- **A Heterometallo-Supramolecular Polymer with Cu(I) and Fe(II) Ions Introduced Alternately**
Eur. J. Inorg. Chem., **2014**, 3763-3770.
Md. Delwar Hossain, Zhang, Jian, **Rakesh K. Pandey**, Takashi Sato and Masayoshi Higuchi
- **Cyclodextrin Inclusion Complexes (IC) with Thiocholesterol and their Self-assembly on Gold: A Combined Electrochemical and Lateral Force Microscopy (LFM) Study**
Thin Solid Films, **2014**, 562, 367-371.
Rakesh K. Pandey* and V. Lakshminarayanan

- **Real-time humidity-sensing properties of ionically conductive Ni(II)-based metallo-supramolecular polymers**
J. Mater. Chem. A, **2014**, 2, 7754.
Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi
- **A quick electrochemical approach for synthesizing the metal nanostructures stabilized with conducting polymers**
Mater. Res. Bull., **2014**, 50, 413.
Rakesh K. Pandey* and V. Lakshminarayanan
- **Thin film of Palladium nanodendrites supported on graphite electrode for catalyzing the oxidation of small organic molecules**
Catalysis Letters, **2014**, 144, 965-970.
Rakesh K. Pandey*, Sandeep Patnaik and V. Lakshminarayanan
- **Ionic Conductivity of Ni(II)-Based Metallo-Supramolecular Polymers: Effect of the Ligand Modification**
J. Mater. Chem. A, **2013**, 1, 9016.
Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi
- **Fluorescent color modulation in Zn(II)-based metallosupramolecular polymer films by electronic-state control of the ligand**
Dalton Trans., **2013**, 42, 16036.
 Takashi Sato, **Rakesh K. Pandey**, and Masayoshi Higuchi
- **Ethanol electrocatalysis on gold and conducting polymer nanocomposites: A study of the kinetic parameters**
Applied Catalysis B: Environmental, **2012**, 125, 271-281.
Rakesh K. Pandey* and V. Lakshminarayanan
- **Porphyrin aggregates in the form of nanofibers and their unusual aggregation induced emission**
J. Porphyrins Phthalocyanines, **2012**, 16, 1-4.
Rakesh K. Pandey*, Upendra Chitgupi, and V. Lakshminarayanan
- **Enhanced electrocatalytic activity of Pd-dispersed 3,4-polyethylene-dioxythiophene film in hydrogen evolution and ethanol electro-oxidation reactions**
J. Phys. Chem. C, **2010**, 114, 8507.
Rakesh K. Pandey and V. Lakshminarayanan
- **Electro-oxidation of formic Acid, methanol, and ethanol on electrodeposited Pd-polyaniline nanofiber films in acidic and alkaline medium**
J. Phys. Chem. C, **2009**, 113, 21596.
Rakesh K. Pandey and V. Lakshminarayanan
- **Enhanced optical nonlinearity of polyaniline-porphyrin nanocomposite**
J. Phys. Chem. C, **2009**, 113, 8630.
Rakesh K. Pandey, C. S. Suchand Sandeep, Reji Philip, and V. Lakshminarayanan
- **Electrocatalytic studies of cytochrome c functionalized single walled carbon nanotubes on self-assembled monolayer of 4-ATP on gold**
J. Electroanal. Chem., **2009**, 627, 63.
 D.H. Nagaraju, **Rakesh K. Pandey**, and V. Lakshminarayanan
- **Electron transfer studies on cholesterol LB films assembled on thiophenol and 2-naphthalenethiol self-assembled monolayers**
J. Colloid Interface Sci., **2007**, 315, 528.
Rakesh K. Pandey, K. A. Suresh, and V. Lakshminarayanan

Papers published in conference proceedings:

Formation of porphyrin /polyaniline nanostructured thin film by layer-by-layer assembly and application in ppb-level lead sensing.

Proceedings of Sensors-15 -2010 c23-1-c23-3.

Rakesh K Pandey, Avinash B.S., and V. Lakshminarayanan

Patents:

Highly proton-conductive polymer film, method for producing same, and humidity sensor

1: Japanese patent application (特願2014-528113)

2: PCT application (PCT/JP2013/070299).

Rakesh K. Pandey, M. Higuchi, S. Moriyama: WO2014021208 A1

Google link: <http://www.google.com/patents/WO2014021208A1?cl=en>

Patentscope WIPO link: <http://patentscope.wipo.int/search/en/WO2014021208>

PAPERS PRESENTED IN CONFERENCES WORLDWIDE

List of Select Presentations Worldwide: 23 International and 4 National (India) conference presentations.

1: Formation of porphyrin/polyaniline nanostructures by Layer-by-Layer assembly and their application in ppb-level lead sensing.

Rakesh K. Pandey and V. Lakshminarayanan

Oral presentation at 216th Electrochemical Society meeting, Vienna (Austria), Oct. 2009.

2: Direct ethanol fuel cell consisting of polyaniline/Pd nano composition electrode.

Yoshitaka Hara, Hironori Tanaka, **Rakesh Kumar Pandey**, Shyam Sudhir Pandey, Shuzi Hayase.

78th Spring Meeting of Japan Electrochemical Society; Yokohama National University, Yokohama, Japan. March 2011.

3: Research pertaining to the utilization of conducting polymer composite catalyst for direct Ethanol fuel cells. H. Tanaka, Yoshitaka Hara, **Rakesh Kumar Pandey**, Shyam S. Pandey , and Shuzi Hayase

48th, Kyushu Branch Chemical Society Meeting, Kitakyushu International Conference Center, Kokura, Kitakyushu, Japan, July 2011.

4: Formation of porphyrin /polyaniline nanostructured thin film by layer by layer assembly and application in ppb level lead sensing.

Rakesh K. Pandey and V. Lakshminarayanan *Also selected for the best oral presentation award

15th national seminar on physics and technology of sensors (15th NSPTS), University of Pune, India, 2010.

5: Electron transfer and electrocatalytic studies on some organic and conducting polymer nanocomposite thin films.

Rakesh K Pandey

Oral presentation at the Department of Biological Functions and Engineering, Kyushu Institute of Technology. October 2010.

6: Electrochemical properties of organic-metallic hybrid polymer films.

Rakesh K. Pandey, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 92nd CSJ meeting, Keio University, Yokohama, Japan, March 2012.

7: Electrical conductivity measurements on organic-metallic hybrid polymer thin films.

Rakesh K. Pandey, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 61st SPSJ meeting, Pacific Yokohama, Yokohama, Japan, May 2012.

8: High proton conductivity in (bisterpyridyl)-benzene based metallo-supramolecular polymers.

Rakesh K. Pandey, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 61st Symposium on Macromolecules-2012, Nagoya Institute of Technology, Nagoya, Japan, September -2012.

9: Tailoring the Structure of Phenanthroline Based Organic-Metallic Hybrid Polymers for Humidity Sensitive Conductivity.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 93rd CSJ meeting, Ritsumeikan University, Kyoto, Japan, March 2013.

10: Ni(II) and Phenanthroline Based Metallo-Supramolecular Polymers for Humidity Sensitive Conductivity.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 62nd SPSJ meeting, Kyoto International Center, Kyoto, Japan, May 2013.

11: Humidity Responsive High Ionic Conductivity of Organic-metallic Hybrid Polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Poster Presentation at the 2013 NIMS conference, July 2013, Tsukuba, Japan.

12: Humidity Responsive High Ionic Conductivity of Organic-Metallic Hybrid Polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 62nd Symposium on Macromolecules, Kanazawa University, Kanazawa, Japan, Sep 2013.

13: Metallo-supramolecular Polymers as a New Class of Ion Conducting Materials

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral Presentation at 63rd Japan Society of Coordination Chemistry (JSCC) conference at Okinawa, Japan, Nov 2013.

14: Proton Conductance of Mo(II)-Phenanthroline-Based Metallo-Supramolecular Polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Electrochemical Society of Japan 81st spring meeting, 29-31 March 2014, Kansai University, Osaka, Japan.

15: Metallo-supramolecular polymers as humidity-responsive ionic conductors.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

225th Electrochemical Society meeting (225th ECS)-2014, Orlando, Florida, USA.

16: Proton Conductance of Mo(II)-Phenanthroline-Based Metallo-Supramolecular Polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Poster Presentation at the 2014 NIMS conference, July 2014, Tsukuba, Japan.

17: Proton Conductance of Mo(II)-Phenanthroline-Based Metallo-Supramolecular Polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral Presentation at 64th Japan Society of Coordination Chemistry (JSCC) conference at Chuo University, Tokyo, Japan, Sep 2014.

18: Proton Conductance of Mo(II)-Phenanthroline-Based Metallo-Supramolecular Polymers

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at 63rd Symposium on Macromolecules, Nagasaki University, Nagasaki, Japan, Sep 2014.

19: Humidity-responsive ionic conductivity of linear and 3-dimensional metallo-supramolecular polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Oral presentation at the 95th Chemical Society of Japan meeting, Nihon University, Chiba, Japan, March 2015

20: Ionic conductivity of linear and 3-dimensional metallo-supramolecular polymers.

Rakesh K. Pandey, Md. Delwar Hossain, Satoshi Moriyama, and Masayoshi Higuchi

Poster presentation at Pacificchem 2015, December 2015 at Honolulu, Hawaii, USA

21. Unusual charging states of the polymers on mechanical deformation.

Rakesh K. Pandey, H. Nakanishi, S. Siowling.

Invited talk at the 6th KIT international symposium on advanced polymer materials and fiber science, Kyoto Institute of Technology, Kyoto, Japan, Sep 23, 2016.

22. Reversible charge states of materials in proximity

Rakesh K. Pandey, H. Nakanishi, S. Siowling.

Invited talk at the 7th KIT international symposium on advanced polymer materials and fiber science, Kyoto Institute of Technology, Kyoto, Japan, Mar 27, 2017.

23. Electrochemical Studies on Some Advanced Nano and Polymeric Materials

Rakesh K. Pandey and H. Nakanishi

1st International conference on frontier areas of chemistry (ICFAC-2020), Feb 2020, East Champaran, Bihar, India

24. Unlocking the Potential of Depleted Dry Batteries: A Dual-Purpose Approach for Waste Mitigation and Sustainable Energy Production

Rakesh K. Pandey

37th Topical Meet of the International Society of Electrochemistry (ISE), June 9-12, 2024, Stresa, Italy

25. Architectural Refinement in Core-Shell Ni/Ni(OH)₂ Nanowires Array for Enhanced Supercapacitor Performance - A Comprehensive Electrochemical and Finite Element Study. Ravi R. Pandey, A. Andola, H. Pandey, Y. Kashyap, **Rakesh K. Pandey**

245th Electrochemical Society (ECS) meeting, San Francisco, USA, 26-30 May 2024, Meet. Abstr. MA2024-01 931

LANGUAGES

ENGLISH: Fluent; **HINDI:** Fluent; **JAPANESE:** Basic

WEBSITE & SOCIAL MEDIA LINKS:

Website: <https://sites.google.com/site/rakeshkpandeycv/home?pli=1>

LinkedIn: <https://www.linkedin.com/in/rakesh-pandey-24640227/>

Google Scholar: <https://scholar.google.com/citations?user=oLI43HYAAAAJ&hl=en>

Orcid: <https://orcid.org/0000-0003-4314-0532>