

Name: Dr. Mohd Suleman
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Mobile No.: +91-9911145695
Date of birth: 07-10-1978

Interests:

- Teaching Physics
- R & D of Energy Materials. Particular emphasis on Physio-chemical studies of:
 - Liquid & Flexible Gel Polymer Electrolytes
 - Electrode Materials
 - Electrode-Electrolyte Interfaces and Mechanisms
 - Fabrication of Supercapacitors & Rechargeable Batteries.

Positions Held:

- June 2018-present**
(4 yrs + 1 month) **Assistant Professor (Physics)**, Department of Physics, S.N.C. Azamgarh-276001, V. B. S. P. University, Jaunpur, U. P., India
- August 2017-May 2018**
(~ 1 Yr.) **Assistant Professor (Physics)**, Faculty of Engineering Science & Technology, Jamia Millia Islamia, New Delhi, India
- April 2015 – July 2017**
(~ 2 Yrs.) **Post-doctoral fellow**, School of Applied Physics, Faculty of Science and Technology, University Kebangsaan Malaysia.

Nov 2008 –June 2014 **Doctoral Thesis**, Department of Physics & Astrophysics, University of Delhi, Delhi, India.
(~ 5.5 Yrs.) **Thesis Title:** Experimental Studies on Gel Polymer Electrolytes Based Solid-State Supercapacitors.
Thesis Advisor: Prof. S. A. Hashmi, Department of Physics & Astrophysics, University of Delhi, Delhi, India

Brief Summary: Four different gel polymer electrolytes, GPEs consisting of solid solvent namely plastic crystal succinonitrile, Lithium salts (LiTf/LiTFSI), ionic liquids (BMPTFSI/EMITf) and polymer PVdF-HFP were prepared. Structural, morphological, spectroscopic, thermal and electrochemical properties of GPEs were investigated via FESEM, XRD, RAMAN, FTIR, TGA, DSC, etc., techniques. Three supercapacitor electrodes based on coconut shell derived activated carbon, graphene oxide and reduced graphene were prepared and characterized by SEM, TEM, XRD, surface area and porosity analysis etc., techniques. Accordingly, twelve different supercapacitor cell configurations were fabricated and characterized by electrochemical impedance spectroscopy, cyclic voltammetry and galvanostatic charge discharge studies.

May 2003–March 2008 **Trained Graduate Teacher (Science)**, Priya Adarsh Public School, Saboli, Delhi, India.
(~ 5 Yrs.)

Education:

May 2002- July 2003 **B. Ed. (Bachelor of Education)** with 60.00 % aggregate, Jamia Millia Islamia, New Delhi, India.

July 2000- May 2002 **M.Sc. (Master of Science) (Physics)**, Material Science, with 78.58% aggregate, University of Jamia Millia Islamia, New Delhi, India.

July 1997- July 2000 **B.Sc. (Bachelor of Science) (Electronics Honours)** with 60.06% aggregate, Zakir Husain College, University of Delhi, Delhi, India.

Honours and Awards:

- Junior Research Fellowship by Department of Science and Technology (DST) New Delhi, India (Host Institute: University of Delhi, Delhi, India, April 17, 2008 to January 11, 2011).
- Gold Medalist (M.Sc., Physics)
- Recipient of Merit Scholarship (M.Sc., Previous & Final)
- Experience (Teaching + Research): 7 yrs
- Publications in SCI Journals: 30
- Papers Presented in International Conferences: 15
- Courses Attended: 01 Orientation + 01 Refresher
- International Collaboration: Faculty of Science & Technology, University Malaysia
- International Membership: Reviewer, Elsevier, United Kingdom

Experimental Skills

- **Electrolyte & Electrode Materials Preparation Techniques:**
 - Standard solution cast technique and Hot press technique for electrolytes.
 - Synthesis of: Ionic liquids, Activated Carbons from Biomass, Nano-structured carbon materials and composites.
 - Chemical synthesis and electro-deposition of conducting polymers & oxides.
 - Inkjet printing, spin-coating techniques for electrodes & electrolytes.
 - Experience with various cell fabricating machines such as Mixing, Coating, Ultrasonic and Electrolyte Filling.