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<u>LIST OF PUBLICATIONS</u>

1. Functionalized thermoplastic polyurethanes as hole conductor for Quantum dot sensitized solar cell**. <u>Sunil Kumar</u>,** I.C. Maurya, O. Prakash, P. Srivastava, S. Das and Pralay Maiti. ***ACS Applied Energy Materials***. **2018, 1(9), 4641-4650.**
2. Redox mediation through integrating chain extender in active ionomer polyurethane hard segments in CdS Quantum dot sensitized solar cell. **<u>Sunil Kumar</u>**, Ravi Prakash and Pralay Maiti. ***Solar Energy***, **2022, 231, 985-1001**
3. Multifunctional Graphene oxide implanted polyurethane ionomer gel electrolyte for quantum dot sensitized solar cell. **<u>Sunil Kumar</u>**, Pravesh Kumar Yadav, Ravi Prakash, Amita Santra and Pralay Maiti. ***Journal of Alloys and Compounds,*** **2022, 922(2022), 166121**
4. Progress on Functional electrolyte and Redox Active Components in 3G Emerging Photovoltaic Technology. **<u>Sunil Kumar</u>** and Pralay Maiti. ***Renewable Energy and Sustainable Reviews*** **(under review)**

<u>Book Chapters</u>

1. **<u>Sunil Kumar</u>,** Pravesh Kumar Yadav and Pralay Maiti. Renewable Cathode Materials dependent on Conjugated Polymer Composite Systems. In Conjugated Polymers for Next-generation Applications, Volume 2: Energy Storage Devices**. *Woodhead Publisher (An Imprint of Elsevier),* 2022, 55-90**
2. Pravesh Kumar Yadav, **<u>Sunil Kumar</u>** and Pralay Maiti. Conjugated Polymers for Solar Cell Applications. In Conjugated Polymers for Next-generation Applications, Volume 2: Energy Storage Devices**. *Woodhead Publisher (An Imprint of Elsevier),* 2022, 367--401**
3. **<u>Sunil Kumar</u>**, Ravi Prakash and Pralay Maiti**.** Advance batteries and charge storage devices based on nanowires**.** In Current and Future Development in Nanomaterials: Applications in Energy Storage and Electronics. ***Bentham Science*** **, 2022, 159-175**
4. Ravi Prakash**, <u>Sunil Kumar</u>** and Pralay Maiti. Carbon nanotube based nanomaterials for solar energy storage devices. In Current and Future Development in Nanomaterials: Applications in Energy Storage and Electronics. ***Bentham Science,*** **2022, 1-18**

CONFERENCE CONTRIBUTIONS

- **Poster Presentation** in International Conference on Advances in Polymer Science & Technology, APA, **December 2017**, New Delhi, India
- **Best Poster Presentation** in National Symposium on Emerging Trends in Chemical Sciences, NSETCS, **November 2018**, Institute of Science, BHU, Varanasi, India
- **Oral Presentation** in International Conference on Ultrasonic and Materials Science for Advanced Technology, ICUMSAT, November **2019**, VBSPU, Jaunpur U.P. India
- **Poster Presentation** in National Conference on Advanced Nanomaterials and Their Applications, **December 2018**, ANA, MNNIT, Allahabad, India
- **Oral Presentation** in National Conference on Polymers: Usefulness and Current Concerns and Eleventh Awards Function of Professor Sukumar Maiti Polymer award foundation Kolkata. **December 2018**, MNNIT, Allahabad, India.
- **Invited Talk** in International Online Conference on Energy Sciences, ICES, **December 2021,** Mahatma Gandhi University, Kottayam, Kerala , India