

List of Research Publications

Research Publications

1. **Manish Kumar Singh**, Ashish Kumar, and Rajiv Prakash. "Self-assembly of regioregular poly (3, 3''-didodecylquarterthiophene) in chloroform and study of its junction properties." *Materials Science and Engineering: B* 217 (2017): 12-17.
2. **Manish Kumar Singh**, Ashish Kumar, and Rajiv Prakash. "Self-assembly of regioregular poly [2, 5-bis (3-tetradecylthiophen-2-yl) thieno [3, 2-b] thiophene], pBTTT-C14 in solvent-mixture and study of its junction behaviour." *Organic Electronics* 50 (2017): 138-146.
3. **Manish Kumar Singh**, Rajiv K. Pandey, and Rajiv Prakash. "High-performance photo detector based on hydrothermally grown SnO₂ nanowire/reduced graphene oxide (rGO) hybrid material." *Organic Electronics* 50 (2017): 359-366.
4. **Manish Kumar Singh**, Ashish Kumar, and Rajiv Prakash. "DNA assisted regioregular poly (3, 3''-didodecylquarterthiophene), rr-PQT-12 fiber: Organic bio-electronic devices." *Organic Electronics* 54 (2018): 209-215.
5. Rajiv K. Pandey, Praveen Kumar Sahu, **Manish Kumar Singh**, and Rajiv Prakash. "Fast grown self-assembled polythiophene/graphene oxide nanocomposite thin films at air-liquid interface with high mobility used in polymer thin film transistors." *Journal of Materials Chemistry C* 6 (2018): 9981-9989.
6. Priyam Singh, Praveen Kumar Shahi, Sunil Kumar Singh, Akhilesh Kumar Singh, **Manish Kumar Singh**, Rajiv Prakash and Shyam Bahadur Rai. "Lanthanide doped ultrafine hybrid nanostructures: multicolour luminescence, upconversion based energy transfer and luminescent solar collector applications." *Nanoscale* 9 (2017): 696-705 (2017).

List of Research Publications

Symposium, Conferences, Workshops and Short Term Courses (STCs):

<i>Sr.no.</i>	<i>Type</i>	<i>Details</i>	<i>Title of Paper/Poster</i>
1.	International Conference	International Conference On Optics and Optoelectronics (ICOL , XXXVIII Symposium of OSI), 05-08 Mar. 2014, DRDO Dehradun [Oral]	Synthesis and Characterization of Nanostructured SnO ₂ /Graphene Composite Thin Film Highly Sensitive UV- Sensor
2.	International Conference	International Conference On Frontiers Of Spectroscopy (ICFS), 10-12 Jan. 2015, Dept. of Physics, Banaras Hindu University, Varanasi [Poster]	Introduction of an Efficient UV-Optical Sensor by Synthesis and Characterization of Metal Oxide Semiconductor and Graphene Composite Thin Film
3.	International Conference	International Conference on Electron Microscopy (ICEM , XXXVII Annual Meeting of EMSI), 02-04 Jun. 2016, Dept. of Metal. Engg. IIT (BHU) Varanasi. [Oral]	Charge Transport Properties in Poly (3-hexylthiophene) Based Thin Film Organic Devices
4.	International Conference	International Conference on Multifunctional Materials For Future Applications (ICMFA), 27-29 Oct. 2015, Dept. Of Chemistry, IIT (BHU) Varanasi [Oral]	Graphene/ Metal Oxide Semiconductor composite Thin film Based UV-Photodetector
5.	International Conference	International Conference on Nanomaterials and Nanotechnology (NANO-15), 07-10 Dec. 2015, KSRCT, Tiruchengode, Tamilnadu. [Poster]	Heterostructured graphene/ metal Oxide composite Thin film Based UV- Sensor
6.	International Conference	4 th International Conference on Nanoscience and Nanotechnology (ICONN-17), 09-11 Aug. 2017, Dept. of Physics and Nanotechnology, SRM University, Chennai, Tamilnadu. [Oral]	Charge Transport in Poly (3-hexylthiophene) based Spin Coated vs. Floating- Film Transfer Method Coated Organic Devices: A Comparative Study
7	International Conference	International Conference on Emerging Trends in Chemical Sciences (ICETCS), 24-25 Feb. 2018, Dept. of Chemistry, DDU Gorakhpur University, Gorakhpur. [Poster]	Study of junction properties in self-assembled poly [2,5-bis(3-tetradecylthiophen-2-yl)thieno[3,2-b]thiophene], pBTTT-C14/ Aluminum

8.	National STC	Fundamental of Photonics and Optoelectronics (FuPO-2014), 14-18 May. 2014, Dept. of Physics, NIT Durgapur [Poster]	Synthesis and Characterization of Nanostructured ZnO/Graphene Composite Thin Film Based Photodetector
9.	National Workshop	INUP Familiarization Workshop On Nanofabrication Technologies, 28-30 Jan. 2015, CeNSE, IISc. Bangalore [Poster]	Synthesis and Characterization of Nano composites Thin films based Organic Devices
10.	National Seminar	45 th National Seminar on Crystallography (NSC 45) 9-12 Jul. 2017, School of Materials Science and Technology, Indian Institute of Technology (BHU), Varanasi [Oral]	Study of Junction Properties In Poly [2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene], MEH-PPV /Aluminium based Devices
11.	University Conference	7 th One Day Conference on Recent Trends in Research, 18 Feb. 2014, Dept. of Physics, Banaras Hindu University, Varanasi. [Oral]	Morphology Controlled Synthesis of MoO ₃ Nanoribbons
12.	University Conference	Institute Day Seminar, 02-03 Apr. 2016, IIT (BHU) Varanasi [Poster]	Wide Band-Gap Metal Oxide SC/rGO Composite Based Optical Sensor
13.	University Conference	Institute Day Seminar, 25-26 Feb. 2017, IIT (BHU) Varanasi [Poster]	Study of Junction Properties In Self Assembled Regioregular Poly (3-3 didode-cylquarterthiophene), rrPQT12/Aluminium
14.	University Conference	Institute Day Seminar, 16-18 Feb. 2018, IIT (BHU) Varanasi [Poster]	Junction behavioral study of Al-metal/self-assembled pBTTT-C14 polymer interface
15.	National Workshop	A Short Course on Flexible Electronics , 2 - 7 Jul. 2018 at NCFlexE , SCDT, IIT Kanpur	
16.	National Workshop	One day workshop on Collaborative Research Scheme (CRS) by NPIU/SPIU, MHRD, 13 th May 2019, Hotel The Revanta, Lucknow	
17.	National STC	AICTE Sponsored Short Term Course On "Materials Characterization for Engineers" June 17 - 21, 2019 School of Materials Science & Technology, Indian Institute of Technology (BHU) Varanasi, India.	

List of Research Publications

Research papers communicated/to be communicated:

1. Ultrafast formation of metal surface plasmons- poly (3, 3'' didodecylquaterthiophene) coupled nano composite thin film with enhanced structural, spectral and photovoltaic property. **Manish Kumar Singh**, Richa Mishra, Rajiv K. Pandey, and Rajiv Prakash (*communicated*)
2. Self-Assemblies in Poly (alkylthiophene)s: An Eminent Material for Electronic Applications, Ashish Kumar, **Manish Kumar Singh**, and Rajiv Prakash (*to be communicated*)
3. Surface plasmon coupled fast grown-up self-assembled polythiophene/ Silver nanoparticle composite thin film at air-liquid interface for enhanced mobility polymer thin film transistor, **Manish Kumar Singh**, Praveen Kumar Sahu, Richa Mishra, Rajiv K. Pandey, and Rajiv Prakash (*to be communicated*)