Brief Biodata

Name: Reena Kumari

Designation:	Technical Officer
DP No. and Name:	4.02, Photonics Material Metrology
DU No. and Name:	4.0, Advanced Materials and Device Metrology
Email:	reena@nplindia.org
Date of Joining CSIR-NPL:	08th January, 2014
Phone ***(office)***	011-45608596

Research Area/ Interest

Characterization of bulk and nano-photonics materials using Spectroscopic Ellipsometry, Photoluminescence and UV-Visible Spectroscopy

Educational Qualifications

(Please write latest qualification first)

Degree	Subject	University/ Institute	Year
M.Sc	Organic Chemistry	Jamia Milia Islamia, New Delhi (JMI)	2009
B.Sc (Hons.)	Chemistry	Delhi University	2007

Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Technical Officer	CSIR-NPL	2019	Till date	Characterization of bulk and nano-photonics materials
Technical Assistant	CSIR-NPL	2014	2019	Characterization of bulk and nano-photonics materials
SRF	Central Pollution Control Board, Delhi	2013	7 months	Reviewing/ evaluating/validating analytical data for environmental development programmes
JRF	Central Pollution Control Board, Delhi	2010	3 years	Reviewing/ evaluating/validating analytical data for environmental development programmes

No. of Publications

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
9	--	1		10

Selected Publications

1. **Charge transport study of P3HT blended MoS2** -S.P Tiwari, Ritu Verma, Md. B. Alam, Reena Kumari, O.P.Sinha, Ritu Srivastava **: Vacuum**. Volume 146, December 2017, pages 474-477.

2. **Li doped ZnO nanostructures for the organic light emitting diode application** -P. Manjhi, Md. B. Alam, Reena Kumari, Richa Krishna, R.K.Singh, Ritu Srivastava, O.P.Sinha. **Vacuum** December 2017, Volume 146, Pages 462-467.

3. **Study of enhancement in the dielectric and electrical properties of WO_3- doped LiF;** Ritu Verma, Surya Prakash Tiwari, Reena Kumari, Ritu Srivastava**. J. Mater Sci.** (2018) 53:4199–4208. https://doi.org/10.1007/s10853-017-1870-3.

4. **Enhanced luminescence efficiency of wet chemical route synthesized InP based quantum dots by a novel method: Probing the humidity sensing;** Akanksha Singha, Chavvi Sharma, Mahesh Kumara, Reena Kumari, Ritu Srivastava, Shailesh Narain Sharma. **Journal of Luminescence** 198 (2018) 108–116.

5. **Mg-doped ZnO nanostructures for efficient Organic Light Emitting Diode;** Payal Manzhi, Reena Kumari**,** Md B. Alam, G.R. Umaapathi, Richa Krishna, Sunil Ojha, Ritu Srivastava,O.P. Sinha**, Vacuum** 2019 Volume 166 , pages 370–376.

6. **Nickel nanoparticles-super yellow (PDY-132) nanoblends for organic light emitting Devices;** Payal Manzhi, Tanvi Bhatnagar, Bharti Parashar, Reena Kumari, Richa Krishna, Ritu Srivastava,O.P. Sinha", **Vacuum** August 2019, Volume 166, Pages 351-355.

7. **Chapter 59 Temperature dependent charge/energy transfer studies of PEDOT:PSS –TiO2 Composites**
   Jyoti Bansal, Tarnija Sarao, Reena Kumari, Ritu Srivastava, A.K Hafiz and Shailesh Narain Sharma
   The Physics of Semiconductor Devices

8. **Study on Chemical Exfoliation, Structural and Optical Properties of Two-Dimensional Layered Titanium Diselenide**- Ashish kumar, Rohit Sharma, Sandeep Yadav, Sanjay Kumar Swami, Reena Kumari, V. N. Singh, S. Ojha,e Joerg J. Schneider, d Ritu Srivastava, and O. P. Sinha, **Dalton Trans.,** 2021, 50, 3894–3903.

9. **A cost-effective liquid phase exfoliation process for large 2D-MoS2 nanosheets and its application in FET**- Rohit Sharma, Mahima Chaudhary, Ashish Kumar, Reena Kumari, Preeti Garg, G. Umapathy, L. Radhapiyari Devi, Sunil Ojha, Ritu Srivastava, and O.P. Sinha **: November 2020 AIP Conference Proceedings 2265(1):030696**, **Conference Paper –DAE Solid State Physics Symposium 2019.**

10. **A Facile Liquid-Phase, Solvent-Dependent Exfoliation of Large Scale MoS2 Nanosheets and Study of Their Photoconductive Behaviour for UV-Photodetector** Rohit Sharma, Ashish Kumar, Reena Kumari, Preeti Garg, G. Umapathy, Radhapiyari Laisharm, Sunil Ojha, Ritu Srivastava, and Om Prakash Sinha : **ChemistrySelect 2021, 6, 11285– 11292**

Patents

Current Activities

(Not more than 100 words)

- Working as a team member under the following project -
  - Indigenous development of color shift intaglio ink (CSII).
  - Development of PCR free, facile luminescence- based kit for ultra sensitive detection of Covid-19.
- Quality document preparation for Spectroscopic Ellipsometer.

Honour(s)/Award(s)/ Fellowship(s)

Contributions to AcSIR

Membership of Professional Societies/ Institutions

Any other Information

(Not more than 100 words)