



Dr. SANDEEP KUMAR

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Educational Qualifications

Ph.D (Physical Chemistry) from **Panjab University, Chandigarh** - 2020
[Title: **LANTHANIDE-BASED NANOPARTICLES FOR EFFICIENT OPTICAL, PHOTOLUMINESCENT AND ELECTROCHEMICAL SENSING**]

M. Sc. (Physical Chemistry) from **G.J.U. S. & T. Hisar** - 2012

B. Sc. from **M.D.U.** - 2010

XIIth from **C.B.S.E.** - 2006

Xth from **H.B.S.E.** - 2004

CSIR NET-JRF in Dec, 2012 with 81 rank.

GATE qualified in year **2013** in **Chemistry**.

Achievements

Best poster award by Chemistry Department G.J.U. S. & T. (Hisar) in national conference on Advanced Physical Methods in Chemical (NCAPMCS-2017) organized on 22th-23th February, 2017.

LIST OF PUBLICATIONS:

Sr. No.	Paper Title & Year	Journal Name	Impact Factor
1.	S. Chaudhary, Sandeep Kumar and S.K. Mehta. Glycol modified gadolinium oxide nanoparticles as a potential template for selective and sensitive detection of 4-nitrophenol. 2015	Journal of Materials Chemistry C	7.059
2.	S. Chaudhary, Sandeep Kumar , A. Umar, J. Singh, M. Rawat and S.K. Mehta. Europium-doped gadolinium oxide nanoparticles: A potential photoluminescent probe for highly selective and sensitive detection of Fe ³⁺ and Cr ³⁺ ions. 2017	Sensors and Actuators B: Chemical	7.29
3.	S. Chaudhary, Sandeep Kumar and S.K. Mehta. Systematic enumeration and proficient chemical sensing applications of Eu ³⁺ @CeO ₂ nanocrystals. 2019	Materials Science and Engineering:C	5.88
4.	S. Chaudhary, P. Sharma, Sandeep Kumar , S. A. Alex, R. Kumar, S.K. Mehta, A. Mukherjee and A. Umar. A comparative multi assay approach to study the toxicity behaviour of EU ₂ O ₃ nanoparticles. 2018	Journal of Molecular liquids	5.065
5.	S. Chaudhary, Sandeep Kumar , B. Kaur and S.K. Mehta. Potential prospects for carbon dots as a fluorescence sensing probe for metal ions. 2016	RSC Advances	3.26
6.	S. Chaudhary, Sandeep Kumar , S. Kumar G.R. Chaudhary, S.K. Mehta and A. Umar. Ethylene glycol functionalized gadolinium oxide nanoparticles as a potential electro chemical sensing platform for	Coating	2.43

	hydrazine and p-nitrophenol. 2019		
7	S. Chaudhary, Sandeep Kumar , S.K. Mehta, A. Umar and M.A. Khan. Fabrication of water soluble and luminescent Eu ₂ O ₃ nanoparticles for specific quantification of aromatic nitrophenols in aqueous media.2019	Chemical Physics Letter 2019	2.02

International Conferences

1. Presented poster in International Conference on “Interdisciplinary Areas with Chemical Sciences” Organized by the Department of Chemistry, Panjab University, Chandigarh in association with Institute of nanoscience and Technology (INST), Mohali, 30th October -1st November 2013.
2. Participated in international conference on “Nano Science and Technology” organized by Institute of Nano Science and Technology, 2nd-5th march 2014.
3. Presented poster in “Indo-germen bilateral workshop on surfactant and amphiphilic polymers in nanotechnology on the way to smarter formulations” Organized by the Department of Chemistry, Panjab University, Chandigarh, 20th-22nd March 2014.
4. Presented poster in International Conference on “Recent Advances in Emerging Technology” organized by Sri Guru Granth Sahib World University, Fatehgarh Sahib, 23th-24th February 2016.
5. Presented poster in “Green Chemistry/Engineering and Technologies for Sustainable Development” Organized by the Department of Chemistry, Panjab University, Chandigarh, 20th-22nd April 2017).

National Conferences

1. Presented poster in “50th Annual Convention of Chemists” organized by the Department of Chemistry, Panjab University, Chandigarh, 4th-7th December 2013.
2. Presented poster in “Prof. Ram Chand Paul National Symposium on New Visions in Chemical Science” organized by the Department of Chemistry, Panjab University, Chandigarh, 15th-16th February 2014.
3. Presented poster in “8th Chandigarh Science Congress” organized by the Department of Chemistry, Panjab University, Chandigarh, 15th-16th February 2014.
4. Presented poster in national symposium on “Recent Advances in Chemical Sciences, Panjab University, Chandigarh, 18th October 2014.
5. Presented poster in “Asian Network for Natural and Unnatural materials” (ANNUM-3) organized by the Department of Chemistry, Panjab University, Chandigarh, 28th February-2nd March 2015.
6. Presented poster in “Prof. Ram Chand Paul National Symposium on Innovation in Chemical Sciences” organized by the Department of Chemistry, Panjab University, Chandigarh, 20th-21st March 2015.
7. Presented poster in national seminar on “Environmental Management, Sustainable Development and Human Health” organized by Dr. S. S. Bhatnagar University Institute of Chemical Engineering & Technology, Panjab University, Chandigarh, 25th March 2015.
8. Participated in 10th National Conference on “Thermodynamics of Pharmaceutical, Chemical and Biological System” organized by the University Institute of Pharmaceutical Sciences & Department of Chemistry, Panjab University, Chandigarh, 20th-21st November 2015.
9. Presented poster in national Conference on “Organic Synthesis and Catalysis” organized by the Department of Chemistry, G. J. U. S. & T., Hisar, 17th-18th February, 2016.
10. Presented poster in national workshop on Electrochemistry “Under the aegis of UGC INDO-US 21ST Century Knowledge Initiative” organized by the

Department of Chemistry, Panjab University, Chandigarh, 24th-25th October, 2016.

Workshops

- 1) Participated in **5 day** workshop of **GIAN** organized by Chemistry Department, Panjab University (Chandigarh).
- 2) Participated in **50th Annual Convention of Chemist 2013** organized by Chemistry Deptt. P. U. Chandigarh, on 4th July, 2013.

One month training on cyclic voltameter in CSIR – Central Electro Chemical Research Institute Karaikudi Tamilnadu.

Expert Lecture Given

- On **Group Theory** in 2018 - School of Basic & Applied Sciences in MAHARAJA AGARSEN UNIVERSITY, Solan.
- On **Basic concept of Quantum Mechanics** in 2019 - Dyal Singh College, Karnal.

Instrumentation Handling:

- *Cyclo Voltammetry
- *I.R [Infra-red]
- *U.V. [Ultra-Violet]
- *P.L. [Photoluminescence Spectrometer]
- *DLS [Dynamic light scattering]