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## Dr. Sarabjot Kaur Makkad

Assistant Professor,

Chemistry,

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**Date of Birth:** 31.12.1989

**Nationality:** Indian

**Marital Status:** Single

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### Publications in International Journal

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1. Makkad S.K., Asha S.K.  $\pi$ -Conjugated Chromophore Incorporated Polystyrene Nanobeads as Single Optical Agent for Three Channel Fluorescent Probe in Bioimaging Application. *ACS Biomater. Sci. Eng.* **2017**, 3, 1788-1798.
2. Makkad S. K., Asha S. K. Surface Functionalized Fluorescent PS Nanobead based Visual Dual Distinct Sensor for the Detection of Volatile Organic Compounds. *Anal. Chem.* **2018**, 90, 7434-7441.
3. Makkad S. K., Asha S. K. Designed Amphiphilic Polymer as Surfactant for Miniemulsion Polymerization of Oligo(p-phenylene vinylene) Incorporated Polystyrene Nanobeads for Water Based Visual Detection of Bilirubin. *ACS Applied Polymer Materials* **2019**, 1, 1230-1239.
4. Sarabjot Kaur Makkad. Amine Decorated Polystyrene Nanobeads incorporating  $\pi$ -Conjugated OPV Chromophore for Picric acid Sensing in Water. *RSC Advances*, 2020, **10**, 6497 - 6502.

### ❖ PATENTS AND INVENTION DISCLOSURES:

1. Makkad S. K., Asha S. K. Fluorescent Polymer For Visual Solid State Sensing of Volatile Organic Compounds. (Publication no : **WO/2019/162960**; Publication Date : **29/08/2019**).

#### ❖ CONFERENCE ATTENDED :

1. Poster at MACRO-2017 conference held at Trivandrum, Kerala, 2017.
2. Poster at CSIR-National Chemical Laboratory, Pune on National Science Day, 2017.
3. Poster at reputed SPSI-MACRO-2018 conference held at IISER , Pune and CSIR-NCL, Pune, 2018.
4. One week Short Term Training Programme (STTP), held at National Institute of Technology, Raipur, 2019.
5. Faculty Development Programme (FDP) at Govt. NPG Science College, Raipur, 2018.
6. Oral presentation at 56th Annual Convention of Chemists organized by Indian Chemical Society and International Conference on Recent Trends in Chemical Sciences (2019). Got **Young scientist** award (Shri B.M.L. Bhasin Memorial Award).

#### ❖ RESEARCH INTERESTS:

1. Targeted synthesis of fluorophores.
2. Covalent incorporation of fluorophores into polymer matrix using miniemulsion polymerization.
3. Functional polymer nanomaterials and their application for chemical and bio-sensing.
4. Application of polymer nanomaterials as cell markers.
5. Stimuli responsive thiol-ester nanomaterials for fluorophore directive bio-imaging.
6. Synthetic strategies to overcome the limitations of self-assembled nanomaterials.

#### ❖ AWARDS AND FELLOWSHIPS:

- ✓ **Shyama Prasad Mukherjee** Research Fellowship through *Joint CSIR-UGC NET-JRF*, June, **2013**. Qualified CSIR-JRF with 8<sup>th</sup> All India Rank.
- ✓ Qualified *Graduate Aptitude Test in Engineering (GATE)*, **2013**.
- ✓ **PG Merit Scholarship** for University Rank Holder by UGC, **2011**.
- ✓ Secured **first** position in both *Undergraduate*, **2010** and *Postgraduate* courses, **2012** .
- ✓ Got selected in *CGPSC (CG Public Service Commission)* and posted as **Assistant Professor (permanent position)** in Govt. NPG Science College, Raipur (C.G), **2017**.

- ✓ Got eight awards for academics in undergraduate course *i.e.* Dr. Deshpandey smriti award, Prof. Daniel Robert Smriti award, Dr. Shankar Shridhar award, Dr. Sharik Sheikh award, Shri Sameer Chitnis award *etc.*
- ✓ Four years degree course in Classical Music from IKSVV.