

## Curriculum Vitae of Dr. Nilanjan Dey

**Name:** Nilanjan Dey MSc (IISc, Bangalore, India), PhD (IISc, Bangalore, India, under supervision of Prof. Santanu Bhattacharya, Department of Organic Chemistry)

### Present position:

Bridging Postdoctoral Fellow  
Technologies for the Advancement of Science Department  
Institute for Stem Cell Biology and Regenerative Medicine.

**Email:** ndey3071@gmail.com

**Phone No:** +917259914800. (080)22932777

### Professional Position

1. Junior Research Associate with Prof. Santanu Bhattacharya in Department of Organic Chemistry, Indian Institute of Science, Bangalore from 1<sup>st</sup> August 2016-31<sup>st</sup> July 2017.
2. Post Doctoral Fellow with Dr. Akash Gulyani in Technologies for the Advancement of Science Department, Institute for Stem Cell Biology and Regenerative Medicine, Bangalore from 1<sup>st</sup> August 2017 to present day.

### Awards/Fellowships

1. Received **National Merit Scholarship** for both Secondary (10<sup>th</sup>) and Higher Secondary (12<sup>th</sup>) Examinations from Govt. of West Bengal.
2. Received **Junior and Senior Research Fellowship**, (Rank: 63/1065) Council of Scientific and Industrial Research (CSIR) and Lectureship Fellowship, Govt. of India.

### List of publications

1. N. Kumari, **N. Dey**, S. Jha and S. Bhattacharya; Ratiometric, Reversible, and Parts per Billion Level Detection of Multiple Toxic Transition Metal Ions Using a Single Probe in Micellar Media; *ACS Appl. Mater. Interfaces*; 2013; **5**; 2438–2445 (IF = 7.50)
2. **N. Dey**, S. K Samanta and S. Bhattacharya; Selective and Efficient Detection of Nitro-Aromatic Explosives in Multiple Media including Water, Micelles, Organogel, and Solid Support; *ACS Appl. Mater. Interfaces*; 2013; **5**; 8394–8400 (IF = 7.50)
3. N. Kumari, **N. Dey** and S. Bhattacharya; Rhodamine based Dual Probes for Selective Detection of Mercury and Fluoride Ions in Water using Two Mutually Independent Sensing Pathways; *Analyst*; 2014; **139**; 2370-2378. (IF = 4.11)
4. N. Kumari, **N. Dey** and S. Bhattacharya; Remarkable role of Positional Isomers in the Design of Sensors for the Ratiometric Detection of Copper and Mercury Ions in Water; *RSC Adv.*; 2014; **4**; 4230–4238. (IF = 3.11)
5. N. Kumari<sup>§</sup>, **N. Dey**<sup>§</sup>, K. Kumar and S. Bhattacharya; Exclusive Detection of Sub-Nanomolar Levels of Palladium (II) in Water: An Excellent Probe for Multiple Applications; *Chem. Asian J.*; 2014; **9**; 3174–3181. [<sup>§</sup>= Equal contribution] (IF = 4.10)
6. **N. Dey** and S. Bhattacharya; A Glimpse of Our Journey into the Design of Optical Probes in Self-assembled Surfactant Aggregates; *Chem. Rec.*; 2016; **16**; 1934-1949. (IF = 3.86)

7. **N. Dey**, D. Bhagat, C. Durgadas and S. Bhattacharya; Utilization of Red-Light-Emitting CdTe Nanoparticles for the Trace- Level Detection of Harmful Herbicides in Adulterated Food and Agricultural Crops; *Chem. Asian J.*; 2017; **12**; 76 – 85. (IF = 4.10)
8. S. Datta, **N. Dey** and S. Bhattacharya; Electrochemical probing of hydrogelation induced by the self-assembly of a donor–acceptor complex comprising pyranine and Viologen; *Chem. Commun.*; 2017; **53**; 2371—2374. (IF = 6.32)
9. **N. Dey**, S. K Samanta and S. Bhattacharya; Heparin triggered dose dependent multi-color emission switching in water: a convenient protocol for heparinase I estimation in real-life biological fluids; *Chem. Commun*; 2017; **53**; 1486-1489. (IF = 6.32)
10. **N. Dey** and S. Bhattacharya; Mimicking Multivalent Protein-Carbohydrate Interaction for Monitoring Glucosamine Level in Biological Fluids and Pharmaceutical Tablet; *Chem. Commun.*; 2017; **53**; 5392-5395. (IF = 6.32)
11. **N. Dey**, A. Ali, S. Majumdar, S. Poddar, D. Nandi and S. Bhattacharya; Engaging Schiff Base Condensation Reaction in Visualization of Histamine in Biological fluids and Macrophage Cells; *Chem. Eur. J.*; 2017; **23**; 11891-11897. (IF = 5.32)
12. **N. Dey** and S. Bhattacharya; Nanomolar Level Uric Acid Sensing in Blood Serum and Pest-Infested Food Grains by an Amphiphilic Probe; *Anal Chem.*; 2017; DOI: 10.1021/acs.analchem.7b02344. (IF = 6.32).
13. **N. Dey** and S. Bhattacharya; Fluorescent Organic Nanoaggregates for Selective Recognition of D-(-)-Ribose in Biological Fluids and Oral Supplements; *Chem Eur j.*; 2017; DOI: 10.1002/chem.201703034 (IF = 5.32)

#### Indian Patent Filled:

1. S. Bhattacharya, **N. Dey**, D. Bhagat, Method and Device for Rapid Detection of HaNPV. Indian Patent Application number. 2017 41019790.

#### Poster presentations:

1. Poster on '**Surface Charge Sensitive Modulation of Sensing Property: Detection of Multiple Ions Exclusively at Mesoscopic Interfaces**', presented at 5<sup>th</sup> Asian Conference on Colloid and Interface Science (ACCIS) at North Bengal University, 20<sup>th</sup> – 23<sup>rd</sup> November 2013.
2. Poster on '**Stringent Alteration in Metal ion selectivity: Tuning effect of Solvent Polarity and Spatial Distribution of the Coordination Motifs**', presented at Challenges in Organic Materials and Supramolecular Chemistry (ISACS18) at IISc Bangalore, 19<sup>th</sup> – 21<sup>st</sup> November 2015.
3. Poster on '**Analyte Induced disassembly of Fluorescent Organic Nanoparticles: A Simple Strategy for 'Ratiometric Sensing' of D-(-)-Ribose in Water**', presented at International Symposium on New Trends in Applied Chemistry at Sacred Heart College, 9<sup>th</sup>-11<sup>th</sup> February 2017.
4. Poster on '**Lectin-Like Behavior of Dynamic Luminescent Nanoassemblies in Water: Involving FONs in Selective Recognition of D-(-)-Ribose**', presented at 4<sup>th</sup> International Conference in Nanoscience and Nanotechnology (ICONN) at SRM University, 8<sup>th</sup>-11<sup>th</sup> August 2017.

5. Poster on '**Rapid Dual-Mode Detection of Fluoride at ppb Level Concentration in Aqueous Environment**', presented at 1<sup>st</sup> International Conference on Emerging Frontiers in Chemical Sciences (EFCS) at Farook College, 23<sup>rd</sup>-25<sup>th</sup> September 2017.

**Conference paper:**

1. **N. Dey** and S. Bhattacharya; Analyte Induced disassembly of Fluorescent Organic Nanoparticles: A Simple Strategy for 'Ratiometric Sensing' of *D*-(-)-Ribose in Water; Proceedings of International Symposium on New Trends in Applied Chemistry (NTAC); 2017; 0; 141-144.

**Works appeared in news:**

1. A fast, portable detector for metal pollutants, Appeared in **The New Indian Express** on 7th October, 2014.
2. Scientists engineer nanoparticles to detect herbicide levels, Appeared in <https://researchmatters.in> & **Bangalore Mirror** on 16<sup>th</sup> May, 2017.

**Oral Presentation:**

Delivered a talk entitled: "**Designing Efficient Probes for ppb Level Detection of Cyanide Ion in Water and Estimation of Endogenous Cyanide in Cassava**" in Pfizer Endowment Lecture in Indian Institute of Science, Bangalore, India, on 20<sup>th</sup> January 2016.

**Member of Professional Organizations:**

1. Life member of **West Bengal Scientific Forum**.
2. Member of **Indian Society for Surface Science and Technology**.
3. Affiliate member of the **Royal Society of Chemistry**.