

# Dr. Sanjib Ganguly (Ph.D)

## **Current Position:**

Associate Professor (Inorganic Chemistry)

Department of Chemistry

St. Xavier's College (*Autonomous*),

Kolkata Contact No.: 09433011024

Email: [icsgxav@gmail.com](mailto:icsgxav@gmail.com)

## **Academic Background:**

Graduation: *Presidency College, Kolkata*

Post-Graduation: *Science College (Calcutta University)*

Ph. D.: *IACS, Kolkata* (under the supervision of *Prof. Animesh Chakravorty*)

## **Teaching Experience:**

Under-graduate: 21 years

Post-graduate: 14 years

## **Areas of Research Interest:**

1. Metal mediated chemical transformation
2. Spin-state interaction of redox sensitive coordination moieties.
3. Coordinated radicals: Stabilization & Electron Transfer Pathways
4. Transition metal complexes as anti-microbials

## **Current Research Projects**

**WBDST Major Research Project** entitled "Mono and Polynuclear Complexes with  $\pi$ - acidic Oximate Function: Synthesis and Spectral, Electrochemical, Theoretical & Reactivity Study"

## **Research Group:**

**Current Ph. D student:** Soumitra Dinda

Aratrika Samajdar

**Past Ph. D. Student:** Dr. Shuvam Pramanik

## Presentations in Symposia, Conferences & Workshops

1. **Resource Person** in UGC CPE funded State Level Workshop on “**Analytical Techniques for Biological Research**” on **February 16, 2020** at the BRSN College
2. **International Conference RACBC-2020** at St. Xavier’s College, Kolkata **January 10, 2020. (ORAL PRESENTATIONS)**
3. **Popular Lecture** on “**Intriguing Metal Mediated Organic Transformation**”, **February 2020** at the Surendranath College, Kolkata
4. **International Conference on Modern Trends in Inorganic Chemistry (MTIC)-2019** at IIT Guwahati, **December 11, 2019. (ORAL PRESENTATIONS)**
5. **Popular Lecture** on “**Role of Periodic Table in Biological Research**” organized by the Royal Society of Chemistry at the Birla Science Museum on **November 30 2019.**
6. **Resource Person** in UGC CPE funded State Level Workshop on “**Refreshing Chemistry for Biologist**” on **December 14, 2017** at the BRSN College.
7. **Asian Meeting on Metal Oxide Assemblies (AMMOA 2017)**, **May 9-10, 2017** at IISER, Kolkata. **(ORAL PRESENTATIONS)**
8. **National Seminar on Emerging Trends in Chemistry (ETC- 2017)**, **February 15, 2017. (POSTER PRESENTATION)**
9. **International Symposium on Advanced Biological Inorganic Chemistry, SABIC- 2017**, **January 7- 11, 2017** at the Stadel Kolkata **(ORAL PRESENTATION)**
10. **International Symposium on Modern Trends in Inorganic Chemistry- XVI (MTIC- XVI)**, **December 3-5, 2015** at the Jadavpur University, Kolkata. **(POSTER PRESENTATION)**
11. **International Conference on Structural Chemistry of Molecules and Materials, SCOMM-2014**, **November 30- December 2, 2014** at Centre for Research in Nanoscience and Nanotechnology (CRNN), University of Calcutta. **(POSTER PRESENTATION)**

## Convener/ Coordinator in Symposia

- **Convener** of the “**National Symposium on Modern Research Trends in Chemistry, MRTC-2019**”, **February 22-23, 2019** at the St. Xavier’s College, Kolkata (jointly with the Royal Society of Chemistry, Eastern India Section)
- **Convener** of the “**International Symposium on Chemistry in Modern day Cancer Research, CMCR-2019**”, **January 8<sup>th</sup>, 2019** at the St. Xavier’s College, Kolkata
- **Convener** of the “**International Symposium on Chemistry & its Role in Environmental Biology, CREB-2018**”, **June 20<sup>th</sup>, 2018** at the St. Xavier’s College, Kolkata
- **Convener** of the “**National Symposium on Facets of Chemistry in Materials & Biology, FOCMB-2018**”, **February 16- 17, 2018** at the St. Xavier’s College, Kolkata
- **Convener** of the “**International Symposium on Facets of Chemistry in Biology, FOCB- 2017**”, **January 12<sup>th</sup>, 2017** at the St. Xavier’s College, Kolkata

- **Convener** of the “National Symposium on Facets of Chemistry in Biology, **FOCB-2016**” ,  
**February 22- 23, 2016** at the St. Xavier’s College, Kolkata

### **Awards & Recognitions:**

1. Bursary Grant for attending 24<sup>th</sup> IUCr Congress and General Assembly in Hyderabad in 2017
2. CSIR NET fellowship in 1995 for pursuing Ph. D.
3. GATE conducted by IIT1995 (98.85 percentile, Rank: 21)

### **List of Research Publications in peer reviewed journals:**

1. Coligand driven diverse organometallation in benzothiazolyl-hydrazone derivatized pyrene: ortho vs. peri C–H activation  
S Dinda, SC Patra, S Roy, S Halder, T Weyhermüller, K Pramanik, **Sanjib Ganguly\***  
***New J. Chem.* 2020**, 44, 1407-1417 (**Impact Factor: 3.288**)
2. Ruthenocycles of benzothiazolyl and pyridyl hydrazones with ancillary PAHs: Synthesis, structure, electrochemistry and antimicrobial activity  
S Dinda, T Sultana, S Sultana, SC Patra, A Mitra, S Roy, K Pramanik, **Sanjib Ganguly\***  
***New J. Chem.* 2020**, 44, 11022-11034 (**Impact Factor: 3.288**)
3. Rhodium assisted peri-C–H activation in benzothiazolyl-hydrazone derivatized pyrene  
S Dinda, SC Patra, T Samanta, A Basu, K Pramanik, **Sanjib Ganguly\***  
***Polyhedron* 2020**, 179, 114352 (**Impact Factor: 2.067**)
4. Polyaromatic hydrocarbon derivatized azo-oximes of cobalt (iii) for the ligand-redox controlled electrocatalytic oxygen reduction reaction  
S Dinda, S Roy, SC Patra, S Bhandary, K Pramanik, **Sanjib Ganguly\***  
***New J. Chem.* 2020**, 44, 3737-374 (**Impact Factor: 3.288**)
5. Rhodium(III) complex with pyrene-pyridyl-hydrazone: synthesis, structure, ligand redox, spectral characterization and DFT calculation.  
***J. Chem. Sci.* 2019**, 131(3), 24 (doi.org/10.1007/s12039-019-1598-5)  
Soumitra Dinda, Sarat Chandra Patra and **Sanjib Ganguly\***
6. Synthesis, X — ray crystal structure, DFT calculations, spectroscopic characterization and redox behaviour of a rhodium(III) complex of an anthracene–pyridylhydrazone ligand. ***Transition Met. Chem.* 2019**, 44, 0000 (doi.org/10.1007/s11243-018-00300-4)  
Soumitra Dinda, Sarat Chandra Patra, Bikash Kumar Panda and **Sanjib Ganguly\***
7. Ambient-Stable Bis-Azoaromatic-Centred Diradical [(L•)M(L•)] Complexes of Rhodium(III): Synthesis, Structure, Redox and Spin-Spin Interaction  
***Inorg. Chem.* 2017**, 56(21), 12764-12774. (**Impact Factor: 4.85**)  
Sima Roy, Shuvam Pramanik, Sarat Chandra Patra, Basab Adhikari, Abhishake Mondal,

**Sanjib Ganguly** and Kausikisankar Pramanik

8. Luminescent Closed Shell Nickel(II) Pyridyl-azo-oximates and the Open Shell Anion Radical Congener: Molecular and Electronic Structure, Ligand Redox and Biological Activity

**New. J. Chem., 2017, 41, 4157-4164. (Impact Factor: 3.288)**

Shuvam Pramanik, Suhana Dutta, Sima Roy, Soumitra Dinda, Tapas Ghorui, Arup Kumar Mitra, Kausikisankar Pramanik and **Sanjib Ganguly\***

9. Iridium(III) Mediated Reductive Transformation of Closed-Shell Azo-oxime to Open-Shell Azo-imine Radical Anion: Molecular and Electronic Structure, Electron Transfer and Optoelectronic Properties"

**Inorg. Chem., 2016, 55(4), 1461-1468. (Impact Factor: 4.85)**

Shuvam Pramani, Sima Roy, Tapas Ghorui, Kausikisankar Pramanik and **Sanjib Ganguly\***

10. Molecular and electronic structure of nonradical homoleptic pyridyl-azo-oxime complexes of cobalt(III) and the azo-oxime anion radical congener: an experimental and theoretical investigation

**Dalton Trans., 2014, 43, 5317. (Impact Factor: 4.19)**

Shuvam Pramanik, Sima Roy, Tapas Ghorui, **Sanjib Ganguly\*** and Kausikisankar Pramanik

11. Oximate Bridged Hetero-binuclear Ru<sup>III</sup>M<sup>I</sup> Complexes ( M = Cu, Ag)

**J. Ind. Chem. Soc., 2012, 89, 107. (Impact Factor: 0.729)**

**Sanjib Ganguly**

12. Trinuclear Ru<sup>III</sup>-Mn<sup>II</sup>-Ru<sup>III</sup> Complexes incorporating azo-oxime function

**J. Ind. Chem. Soc., 2010, 87, 1299. (Impact Factor: 0.729)**

Indranil Bhattacharyya and **Sanjib Ganguly\***

13. Oximate bridged Rh<sup>III</sup>M<sup>II</sup><sub>2</sub> and Rh<sup>III</sup>M<sup>I</sup> species (M<sup>II</sup> = Mn, Co, Ni; M<sup>I</sup> = Cu, Ag)

**J. Chem. Sci., 2008, 120, 87. (Impact Factor: 1.30)**

Indranil Bhattacharyya, **Sanjib Ganguly**, Bikash Kumar Panda and Animesh Chakravorty.

14. Planar four coordinate nickel(II) complexes of tridentate ligands incorporating azo,- oxime-carboxyl chelation: synthesis and structure.

**J. Ind. Chem. Soc., 2005, 82, 898. (Impact Factor: 0.729)**

**Sanjib Ganguly** and Soma Karmakar

15. Azo-oxime-carboxylates of bivalent platinum

**J. Ind. Chem. Soc., 2004, 81, 327. (Impact Factor: 0.729)**

**Sanjib Ganguly**

16. A very rare mononuclear nickel(II) species bonded via oxygen atom of oximate function using pyridyl-azo-oxime type of ligands

**J. Ind. Chem. Soc., 2002, 79, 271. (Impact Factor: 0.729)**

Chandan Kumar Pal and **Sanjib Ganguly\***

17. Synthesis, structure and reactivity of palladated azo-oxime-carboxylates.

***Indian J. Chem.*, 2001, 40A, 90. (Impact Factor: 0.729)**

Chandan Kumar Pal, Soma Mukherjee (Karmakar) and **Sanjib Ganguly\***

18. Synthesis and Structure of Silver Azo-oximates. Hydrogen Bonding and Non-bonded Ag...Ag Interactions.

***Inorg. Chem.*, 2000, 39, 2954. (Impact Factor: 4.85)**

**Sanjib Ganguly**, Surajit Chattopadhyay, Chittaranjan Sinha and Animesh Chakravorty

19. Regiospecific Oximato-O coordination at the oxygen site: Ligand Design and Low-spin Mn<sup>II</sup> and Fe<sup>II/III</sup> Species.

***Inorg. Chem.* 1999, 38, 5984. (Impact Factor: 4.85)**

**Sanjib Ganguly**, Soma Karmakar, Chandan Kumar Pal and Animesh Chakravorty

20. A New Family of Acylrhodium Organometallics.

***Organometallics*, 1999, 18, 1486. (Impact Factor: 4.13)**

Sujay Pattanayak, Swarup Chattopadhyay, Kaushik Ghosh, **Sanjib Ganguly**, Prasanta Ghosh and Animesh Chakravorty.

21. Synthesis and structural studies of cobalt complexes of tridentate ligands incorporating azo, oxime and carboxylate functions.

***Indian J. Chem.*, 1999, 38A, 335.**

**Sanjib Ganguly** and Soma Karmakar

22. Synthesis and structure of bis azooximes of dichlororhodium(III): the oxime...oximato OH...O bridge and effect of its deprotonation.

***J. Chem. Soc., Dalton Trans.* 1998, 461. (Impact Factor: 4.19) **Sanjib****

**Ganguly**, Vadivelu Manivannan and Animesh Chakravorty.

23. Azo oximes of bi- and tri-valent Nickel

***J. Chem. Soc., Dalton Trans.* 1997, 585. (Impact Factor: 4.19)**

Soma Karmakar, Suranjan Bhanja Chowdhury, **Sanjib Ganguly** and Animesh Chakravorty

24. First examples of carboxyl-bonded low-spin Mn(III) complexes

***Inorg. Chem.*, 1997, 36, 116. (Impact Factor: 4.85)**

**Sanjib Ganguly**, Soma Karmakar and Animesh Chakravorty