

## Faculty Academic Profile/CV

**Full name of the faculty member:** Sarat Chandra Patra

**Designation:** State Aided College Teacher (SACT)-I (Unreserved)

**Specialization:** Organic Chemistry

**Contact information:**

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## Educational Qualifications

Degree (Specialization)	Name of the institute/Awarding University	Year of passing
B.Sc (Hons.)	R.K.Mission Vidyamandira, Belur Math/ Calcutta University	2005
M.Sc (Organic Chemistry)	R.K.Mission Residential College, Narendrapur/ Calcutta University	2007
Ph.D. (Inorganic Chemistry)	R.K.Mission Residential College, Narendrapur/ Calcutta University	2015

## Teaching Experiences

Name of the Institutions	Designation	Period	Course
Ramakrishna Mission Residential College, Narendrapur, Kolkata	Honorary guest lecturer	01.06.2014 to 31.12.2019	B.Sc.
Diamond Harbour Women's University, Sarisha, South 24 Parganas	Resource person	16.08.2017 to 31.12.2019	M.Sc.
Muralidhar Girls' College, Golpark, Kolkata	Guest lecturer	01.08.2018 to 31.12.2019	B.Sc.
Muralidhar Girls' College, Golpark, Kolkata	SACT-I (UR)	01.01.2020 to present	

## Teaching area in organic chemistry

- Stereochemistry
- Carbonyl compounds and organometallics
- Strategies in organic syntheses
- Spectroscopy
- Heterocyclic compounds
- Pericyclic reactions and photochemistry

## Awards/ Fellowships

- Dr. D S Kothari Fellowship (a UGC sponsored national postdoctoral research fellowship), 2016
- Extended Senior Research Fellowship (Council of Scientific and Industrial Research, CSIR), 2015
- Qualified GATE, 2015
- Senior Research Fellowship (CSIR, New Delhi, India), 2013

## List of Publications

1. "Ruthenocycles of benzothiazolyl and pyridyl hydrazones with ancillary PAHs: synthesis, structure, electrochemistry and antimicrobial activity."  
Soumitra Dinda, Tamanna Sultana, Suhana Sultana, **Sarat Chandra Patra**, Arup Kumar Mitra, Subhadip Roy, Kausikisankar Pramanik and Sanjib Ganguly, *New J. Chem.*, **2020**, *44*, 11022-11034.
2. "Polyaromatic hydrocarbon derivatized azo-oximes of cobalt(iii) for the ligand-redox controlled electrocatalytic oxygen reduction reaction."  
Soumitra Dinda, Syamantak Roy, **Sarat Chandra Patra**, Subhrajyoti Bhandary, Kausikisankar Pramanik and Sanjib Ganguly, *New J. Chem.*, **2020**, *44*, 3737-3747.
3. "Coligand driven diverse organometallation in benzothiazolyl-hydrazone derivatized pyrene: ortho vs. peri C–H activation."  
Soumitra Dinda, **Sarat Chandra Patra**, Subhadip Roy, Supriyo Halder, Thomas Weyhermüller, Kausikisankar Pramanik and Sanjib Ganguly, *New J. Chem.*, **2020**, *44*, 1407-1417.
4. "Rhodium assisted peri-C–H activation in benzothiazolyl-hydrazone derivatized pyrene."  
Soumitra Dinda, **Sarat Chandra Patra**, Tridib Samanta, Ambika Basu, Kausikisankar Pramanik, Sanjib Ganguly, *Polyhedron*, **2020**, *179*, 114352.
5. "Palladium and platinum complexes of glyoxalbis(N-aryl)osazone: molecular and electronic structures, anti-microbial activities and DNA-binding studies."  
**Sarat Chandra Patra**, Amit Saha Roy, Saswati Banerjee, Ananya Banerjee, Ranjan Bhadra, Krishna Das Saha, Kausikisankar Pramanik and Prasanta Ghosh, *New. J. Chem.*, **2019**, *43*, 9891-9901.
6. "Rhodium(III) complex with pyrene-pyridyl-hydrazone: synthesis, structure, ligand redox, spectral characterization and DFT calculation"

- Soumitra Dinda, **Sarat Chandra Patra**, Sanjib Ganguly, *J. Chem. Sci.*, **2019**, *131*, <https://doi.org/10.1007/s12039-019-1598-5>.
7. “Synthesis, X-ray crystal structure, DFT calculations, spectroscopic characterization and redox behaviour of a rhodium(III) complex of an anthracene–pyridylhydrazone ligand.”  
Soumitra Dinda, **Sarat Chandra Patra**, Bikash Kumar Panda and Sanjib Ganguly, *Transit. Met. Chem.*, **2019**, <https://doi.org/10.1007/s11243-018-00300-4>.
8. “Redox-active diaminoazobenzene complexes of rhodium(III): synthesis, structure and spectroscopic characterization.”  
Sima Roy, Shuvam Pramanik, Tapas Ghorui, Soumitra Dinda, **Sarat Chandra Patra** and Kausikisankar Pramanik, *New J. Chem.*, **2018**, *42*, 5548-5555.
9. “Ambient-Stable Bis-Azoaromatic-Centered Diradical [(L•)M(L•)] Complexes of Rh(III): Synthesis, Structure, Redox, and Spin–Spin Interaction.”  
Sima Roy, Shuvam Pramanik, **Sarat Chandra Patra**, Basab Adhikari, Abhishake Mondal, Sanjib Ganguly and Kausikisankar Pramanik, *Inorg. Chem.*, **2017**, *56*, 12764-12774.
10. “Ruthenium, osmium and rhodium complexes of 1,4-diaryl 1,4-diazabutadiene: radical versus non-radical states.”  
**Sarat Chandra Patra**, Amit Saha Roy, Vadivelu Manivannan, Thomas Weyhermüller and Prasanta Ghosh, *Dalton Trans.*, **2014**, *43*, 13731-13741.
11. “Ruthenium, Rhodium, Osmium, and Iridium Complexes of Osazones (Osazones = Bis-Arylhydrazones of Glyoxal): Radical versus Nonradical States.”  
**Sarat Chandra Patra**, Thomas Weyhermüller, and Prasanta Ghosh, *Inorg. Chem.*, **2014**, *53*, 2427–2440.
12. “Zinc(II), iron(II/III) and ruthenium(II) complexes of *o*-phenylenediamine derivatives: oxidative dehydrogenation and photoluminescence.”  
Satyabrata Chaudhuri, **Sarat Chandra Patra**, Pinaki Saha, Amit Saha Roy, Suwendu Maity, Sachinath Bera, Pinki Saha Sardar, Sanjib Ghosh, Thomas Weyhermüller, and Prasanta Ghosh, *Dalton Trans.*, **2013**, *42*, 15028-15042.
13. “Asymmetric cleavage of 2,2'-pyridil to a picolinic acid anion radical coordinated to ruthenium(II): splitting of water to hydrogen.”  
Manas Kumar Biswas, **Sarat Chandra Patra**, Amarendra Nath Maity, Shyue-Chu Ke, Thomas Weyhermüller, and Prasanta Ghosh, *Chem. Commun.*, **2013**, *49*, 4522-4524.

14. "9,10-Phenanthrenesemiquinone radical complexes of ruthenium(III), osmium(III) and rhodium(III) and redox series."

Manas Kumar Biswas, **Sarat Chandra Patra**, Amarendra Nath Maity, Shyue-Chu Ke, Thomas Weyhermüller, and Prasanta Ghosh, *Dalton Trans.*, **2013**, *42*, 6538-6552.

15. "Electronic structures of ruthenium and osmium complexes of 9, 10-phenanthrenequinone."

Manas Kumar Biswas, **Sarat Chandra Patra**, Amarendra Nath Maity, Shyue-Chu Ke, Nirmal Das Adhikary, and Prasanta Ghosh, *Inorg. Chem.*, **2012**, *51*, 6687-6699.

16. "Osazone Anion Radical Complexes of Rhodium (III)."

**Sarat Chandra Patra**, Manas Kumar Biswas, Amarendra Nath Maity, and Prasanta Ghosh, *Inorg. Chem.*, **2011**, *50*, 1331-1338.

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