CURRICULUM VITAE

SHAMPA CHAKRABORTY

APP No-S30
NEERI Colony, Nagpur, Maharashtra **Mobile :**
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E-mail: shampa132@gmail.com

March,2019-Onwards **Research Associate**

CSIR- National Environmental Engineering Research Institute

March, 2017- 2019 **National Post-Doctoral Fellow (SERB-DST)**

CSIR-National Environmental Engineering Research Institute

October 2014-March 2015 : **Post Doctoral Studies**
Ohio State University (OSU),
Columbus. Ohio, USA

Supervisor: Dr. Jovica Badjic (badjic@chemistry.ohio-state,edu}

- Synthesis and Characterization of Nerve agent compounds (Molecular Baskets).

2011-2016: ***Completed*** (Ph.D.)
Indian Institute of Engineering Science and Technology
Shibpur, Howrah
Howrah-711103, India
Advisor: Dr. Shyamaprosad Goswami (spgoswamical@hotmail.com)

Thesis Title: **Synthetic Studies on Quinoxaline Analogues and Their Applications in Molecular Recognition**

Research:

- Synthesis of sensor for transition metal cations
- Synthesis of sensor for transition metal cations
- Synthesis of Molybdenum Cofactor analogues
- Synthesis of Quinoxalines

Education:

2002–2004: ***M.Sc.*, Chemistry** **First Class**
Indian Institute of Engineering Science and Technology
Shibpur, Howrah
Howrah-711103, India

Advisor: Dr. Shyamaprosad Goswami

Thesis Title: Synthesis of Pyrimidines by Microwave irradiation.

2000–2003: ***B.Sc.*** **(Chemistry** Hons) **First Class**
Sree Gopal Banerjee College,
Burdwan University,
Magra, India.

Work Experience:

May,2005-Jan,2006: ***Research Assistant***
Central Salt and Marine Chemicals Research Institute (CSMCRI),
CSIR, Bhavnagar, Gujarat, India.

Supervisor: Dr. Bishwajit Ganguly (ganguly@csmcri.org}

- Theoritical investigation of change of crystal morphology by adding different additives onto the alkali halides crystals.

March 2006-Aug 2006: ***Project Fellow***
Sept,2006-Sept,2008 ***Research Chemist***

Oct, 2008-Sept,2010 ***Senior Research Chemist***

Oct.2010-Sept,2011 ***Research Scientist***

TCG Life Sciences Ltd (Chembiotek),
Salt Lake city, Kolkata, India.
Supervisor: Dr. Kanak Kanti Majumdar (kanak@chembiotek.com)

- Synthesis of Heterocyclic Compounds
- Completed 30 different projects with different scaffolds
- Synthesis of 1060 Library compounds and 360 library compounds in two different projects

Publications:

1. Environmental Applications of Boron-Doped Diamond Electrodes: 2. Soil Remediation and Sensing Applications Clement Trellu, C.; Chakraborty, S.; Nidheesh, P. V. and Oturan, M. A. Chem electro chem., DOI: 10.1002/celc.201801877

2. Sensing Study of Quinoxaline Analogues with Theoretical Calculation, Single Crystal X-Ray Structure and Real Application in Commercial Fruit Juices. Chakraborty, S.; Goswami, S.; Quah, C. K.; Pakhira, B., Royal Society Open Science, 2018,5(6), http://dx.doi.org/10.1098/rsos.180149

3. Synthesis of a series of aldol compounds by direct LDA reaction from pyruvaldehyde dimethyl acetal and 3-arylmethylidine pentane 2,4 diones by Knoevenagel reaction, Chakraborty, S.; Goswami, S.; Quah, C. K. J. Indian Chem. Soc, **2018**, *95*, 623-627 along with front cover page.

4. A Learning Session on Supramolecular Chemistry and its Advancement, Chakraborty, S.; *Education in Chemical Science and Technology*, **2018**, *6*, 71-74.

5. A highly selective ratiometric chemosensor for Ni2+ in a quinoxaline matrix, Goswami, S.; Chakraborty, S.; Adak, M. K.; Halder, S, Quah, C. K.; Fun, H. K.; Pakhira, B.; Sarkar, S. New J. Chem. **2014**, 38, 6230. Impact Factor 3.277 DOI 10.1039/C4NJ01498G

6. Selective Colorimetric and Ratiometric Probe for Ni(II) in Quinoxaline Matrix with the Single Crystal X-ray Structure. Goswami, S.; Chakraborty, S.; Das, A. K.; Manna, A.; Bhattacharyya, A.; Quah, C. K.; Fun, H. K. *Rsc Adv.* **2014**, *40*, 20616. **ImpactFactor2.936 DOI** 10.1039/C4RA00594E

7. A New Pyrene Based Highly Sensitive Fluorescence Probe for Copper(II) and Fluoride with Living Cell Application Goswami, S.; Chakraborty, S.; Paul, S.; Halder, S.; Panja, S.; Mukhopadhyay, S. K. O*rg. Biomol. Chem.* **2014**, *12* (19), 3037. (With inside cover page image). **Impact Factor 3.564 DOI** 10.1039/C4OB00067F.

8. A Simple Quinoxaline-Based Highly Sensitive Colorimetric and Ratiometric Sensor, Selective for Nickel and Effective in Very High Dilution. Goswami, S.; Chakraborty, S.; Paul, S.; Halder, S.; Maity, A. C. *Tetrahedron Lett*. **2013**, *54*, 5075. **Impact Factor 2.379** https://doi.org/10.1016/j.tetlet.2013.07.051

9. Dual Channel Selective Fluorescence Detection of Al(III) and Ppi in Aqueous Media With 'Off-On-Off' Switch which Mimics Molecular Logic Gating (INHIBIT And EXOR Gate) Interpretations Goswami, S.; Manna, A.; Paul, S.; Aich, K.; Das, A. K.; Chakraborty, S. *Dalton.trans.* **2013**, *42*, 8078. **ImpactFactor 4.099 DOI**10.1039/C3DT50621E

10. Highly Reactive (<1 min) Ratiometric Probe for Selective 'Naked-Eye' Detection of Cyanide in Aqueous Media. Goswami, S.; Manna, A.; Paul, S.; Aich, K.; Das, A. K.; Chakraborty, S. *Tetrahedron Lett*. **2013**, *54*, 1785. **Impact Factor 2.379** DOI 10.1016/j.tetlet.2012.12.092,

11. A New Route for Total Synthesis of (±) Dephospho Form B of Molybdenum Cofactor by Direct One Step Thiophene Annulation from Suitable Pterin Alkynes. Goswami, S.; Maity, A. C.; Chakraborty, S.; Das, M. K.; Goswami, B. *Tetrahedron Lett*. **2013**, *54*, 2373. **Impact Factor 2.379** DOI10.1016/j.tetlet.2013.02.090

12. Conformational Analysis and the Binding Sites of Nitrilotriacetamide: A Computational Study. Singh, A.; Chakraborty, S.; Ganguly, B. *Int. J. Quant. Chem.* **2007**, *107*, 1430. **Impact Factor 2.184** DOI10.1002/qua.21264

13. Computational Study of Urea and Its Homologue Glycinamide: Conformations, Rotational Barriers, and Relative Interactions with Sodium Chloride. Singh, A.; Chakraborty, S.; Ganguly, B. *Langmuir* **2007**, *23*, 5406. **Impact Factor 3.789**

14. C_2-Chiral Substituted cis-1,3,5,7-Tetraazadecalins As Proton Sponges: A Computational Study. Singh, A.; Chakraborty, S.; Ganguly, B. *Eur. J Org. Chem*. **2006**, *21*, 4938. **Impact Factor 3.559**

15 One Step Synthesis of New Cocrystals of Chloropterin and 5-Deazapterin-6-Carboxylic acid Perchlorate salts, Chakraborty,S.; Goswami, S.; Quah.;C. K.; ,Halder. S.; *Journal of chemical crystallography*, https://doi.org/10.1007/s10870-019-00805-5.

16. Selective and Sensitive Fluorescent Chemosensor for Iron(III) in Pyrene homologs Applicable for Ratiometric Detection of Fe3+ in Vegetables and Fruit Juices, Chakraborty,S, Rayalu.; S, *Inorganic Chemistry commun*, DOI: 10.1016/j.inoche.2019.107693 Impact factor 1.795

17. Rapid and Efficient Synthesis of 2,2-Dimethylaminobenzazoles and 2,2-Dimethylaminoazoles in a Sustainable Way, Chakraborty S.; Goswami, S.; Quah ,C.K.;, Rayalu, S.; Materials Research Innovations, Accepted.

Presentations and Posters:

1. *"International Symposium on Molecular Organization and Complexity: A Chemical Perspective"* (ISMOC-2013) held in Saha institute of Nuclear Physics on **February**, **2013**.
2. "*Indian Science Congress*": held in IIEST (Shibpur, Howrah, India) on **March**, **2013**.
3. *Research Scholar Day home symposium*: held in IIEST, Shibpur, Howrah on **February**, **2014**. (Poster presented on "Nickel sensor and its usefulness and necessity in chemical research")
4. *"Interdisciplinary Approaches Towards Environmental Mangement" on* ***September 22nd,2017*** *held in National Environmental Engineering Research Institute, Nagpur*.
5. *"Design, Operation,Maintenance and Performance of STP, CETP, CBMWTFs"* ***Sept 06*****-08, 2017** *held in National Environmental Engineering Research Institute, Nagpur*.

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Language Proficiency

Language	Speak	Read	Write	Test Score
Bengali	Native	Native	Native	Native
English	Fluent	Fluent	Fluent	
Hindi	Fluent	Fluent		
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Research Experience and Technical Skills:

- Operation of instruments like Fluorescence, GC, IR, UV.
- Well versed in applying the spectroscopic techniques like NMR, UV, IR, ESR to characterize various compounds and their synthetic analogs.
- Skilled in conducting various reactions involving special conditions like low temperature, inert atmosphere and sensitive reagents.

- Knowledge of reactions and their mechanisms carried under non-conventional techniques like microwave, ultrasound, and polymer supported reagents etc.

Computer Skills:

- **Platform :** WINDOWS
- Proficient with different types of **software** packages including: image analysis, data analysis, graphical arts. Chemdraw, Photoshop, Origin etc.

Management Skills:

- Supervising experiences: in Industry and academic Laboratory working with graduate students (Academics)

References:

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Indian Institute of Engineering Science and Technology, Shibpur,
Howrah-711103, India
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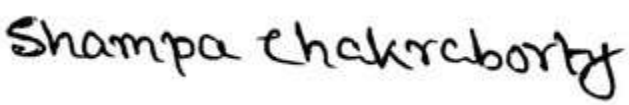
I hereby declare that all the above-mentioned details are true to the best of my knowledge.



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