

Brief Bio-data

1. Name: Dr. Monalisa Gangopadhyay
2. Date of Birth: 15.07.1988
3. Current Position and Address: **Scientist**, Carbonisation, CSIR-CIMFR, Digwadih Campus, P.O. FRI, Dhanbad-828108, Jharkhand, INDIA,
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4. Educational qualifications: (Graduation and above)

Sl. No.	Degree	Year of Passing	University/Institute	Subject
1.	B.Sc, Chemistry (H)	2009	University of Calcutta	Chemistry (H), Phys, Math
2.	M.Sc, Chemistry	2011	University of Calcutta	Chemistry
3.	Ph.D (Chemical Science)	2017	CSIR-National Chemical Laboratory	Chemistry
4.	Post-Doc	2018	King Abdullah University of Science and Technology, Saudi Arabia	Supramolecular Chemistry

5. Work experience:

Designation	Institute/company	From	To	Nature of Work
Guest lecturer	Bagnan College, University of Calcutta	August 2011	March 2012	Teaching
Scientist	CSIR-CIMFR	18.12.2018	Till date	Research

6. Work Area(s)/ Specialization: Coal Carbonisation, coke making technologies, briquetting and pelletization of coal and coke fines, supramolecular chemistry, analytical chemistry, fluorescence.

7. Major contributions: Study of coking potentiality of coal & coal blends and Optimization of coal blends for coke making. Studies on different techniques of coke making: top charging, stamp charging and hot stamping. Carbonization of lignite and bio-mass, briquetting and pelletization of coal and coke fines and their thermal treatment. A unique example of host and guest supramolecular plug/socket system, whose plug in/out state could be recognised through FRET mechanism as a unique optical response. Also developed a supramolecular adduct, where different optical response due to control complexation help us to find their application as molecular logic gates.

8. No. of Research Publications: **14**

- Papers in Journals: **12**
- In conference proceedings: **2**
- Invited lectures delivered:
- List of best 05 publications

1. Amal Kumar Mandal, **Monalisa Gangopadhyay** and Amitava Das, *Photoresponsive pseudorotaxanes and assemblies*. Chem Soc Rev., 2015, 44, 663-676. (Impact Factor: 54.564).
2. **Monalisa Gangopadhyay**, Arunava Maity, Ananta Dey, P. R. Rajamohanan, Sapna Ravindranathan and Amitava Das *Chiral Discrimination Through ¹H NMR and*

luminescence spectroscopy: Dynamic Processes and Solid Strip for Chiral recognition FRET Based Process in Supramolecular Assemblies Chem. Eur. J. 2017,. (Impact Factor: 5.236)

3. **Monalisa Gangopadhyay**, Arunava Maity, Ananta Dey, and Amitava Das [2]*Pseudorotaxane Formation with FRET Based Luminescence Response: Demonstration of Boolean Operations through Self Sorting on Solid Surface* J. Org. Chem. 2016, 81, 8977–8987. (Impact Factor: 4.8)
4. **Monalisa Gangopadhyay**, Amal K. Mandal, Arunava Maity, Sapna Ravindranathan, Pattuparambil R. Rajamohanan, and Amitava Das *Tuning Emission Responses of a Triphenylamine Derivative in Host–Guest Complexes and an Unusual Dynamic Inclusion Phenomenon* J. Org. Chem. 2016, 81, 512–521. (Impact Factor: 4.8)
5. Arunava Maity, **Monalisa Gangopadhyay**, Arghya Basu, Sunil Aute, Sukumaran Santhosh Babu, and Amitava Das *Counteranion Driven Homochiral Assembly of a Cationic C3-Symmetric Gelator through Ion-Pair Assisted Hydrogen Bond* J. Am. Chem. Soc, 2016,138, 11113-11116. (Impact Factor: 15.419).
6. **M Gangopadhyay***, GK Bayen, M Kumar, A Mukherjee, R Ranjan, S Kumar, *Preheating upto Tarrification Point and Compaction: A Promising Way for Coke Quality Enhancement.* Int. J. Coal Preparation and Utilization, 10.1080/19392699 (Impact Factor: 2.697)

- Books/Chapters authored/edited: 01

9. List of 5 Major Contract R&D Projects:

1. Studies on preparation of alternative fuel for metallurgical industries using available Indian carbonaceous materials and their blends. (In house)
2. Scientific study on Quality Monitoring of Iron ore at dispatch points of Donimalai Complex Iron Ore Mines of NMDC Limited
3. Design and development of 4500 TPM capacity sole heated soft coke oven plant of coal for M/S Hari Om Industries.
4. Scientific study on preparation metallurgical coke from coal blend and characterization thereof.
5. Providing consultancy services for installation of drag type hard coke oven plant.

10. (a) Name of Patents/Copyrights applied /granted/commercialized: **An improved technology for production of soft coke for domestic use (CSIR N. F. No-0167NF2019)**

(b) Technologies/Products /knowhow/Services developed: **Modified Soft coke oven for commercial soft coke production to i) M/S Eastern Fuel Pvt. Ltd, UP, ii) M/S Sidhgri Holdings Pvt. Ltd, iii) M/S Shardapunj Fuel coke Pvt. Ltd, Mughalsarai, UP, iv) M/S Kahkasha Enterprises, Hazaribagh,**

11. Honors/Awards/Recognitions/Fellowships/Scholarships/Professional Memberships received:

- Junior Research Fellowship awarded by CSIR-India, 2011.
- Qualified Graduate Aptitude Test in Engineering GATE – 2012, 2013, 2016.
- Qualified in all India JAM in 2009 (to pursue M.Sc in Chemistry in IITs).
- Life member Chemical Research Society of India (CRSI)

12. Societal Contributions

Organised skill development programme, guided students for deisseration and interacted with school students in Jigyasa programme.