

## SOUMITRA MAITY, Ph.D.

Chemistry & Chemical Biology  
IIT(ISM) Dhanbad  
Dhanbad, JH 826004

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### Personal Details

Place of Birth: Purba Medinipur, West Bengal

Sex: Male

Marital Status: Married

Nationality: Indian

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### Professional Experiences

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| 13.04.2022 – Present | Associate Professor<br>IIT(ISM), Dhanbad                                                                                             |
| 2015 – 12.04.2022    | Assistant Professor<br>IIT(ISM), Dhanbad                                                                                             |
| 2013 – 2014          | AcSIR Assistant Professor, INSPIRE Faculty<br>CSIR-Central Salt and Marine Chemicals Research Institute<br>Bhavnagar, Gujarat 364002 |

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### Education and Research Experiences

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|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012 – 2013 | Postdoctoral Fellow<br>Advisor: Professor Thomas Maimone<br>University of California-Berkeley, California, USA<br>Topic: <i>Total synthesis of Natural Products</i>                      |
| 2010 – 2012 | Postdoctoral Fellow<br>Advisor: Professor Nan Zheng<br>University of Arkansas, Arkansas, USA<br>Topic: <i>Synthetic methods development by photoredox catalysis</i>                      |
| 2005 – 2010 | Ph.D. in Organic Chemistry<br>Advisor: Professor Subrata Ghosh<br>Indian Association for the Cultivation of Science, Kolkata, India<br>Topic: <i>Total Synthesis of Natural Products</i> |
| 2002 – 2004 | M.Sc in Organic Chemistry<br>Science College, University of Calcutta                                                                                                                     |
| 1999 – 2002 | B.Sc in Chemistry with Honors<br>Ramakrishna Mission Residential College, Narendrapur, C.U                                                                                               |

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### Awards and Fellowship

- **INSPIRE Faculty Award:** July 2013 (DST), India.
- **Doctoral Fellowship:** Feb 2005 – Aug 2010 (CSIR), India.
- **National Eligibility Test (NET- 2004):** Qualified as JRF, Council of Scientific and Industrial Research (CSIR), India.
- **Graduate Aptitude Test (GATE-2004):** Percentile: 99.06; All India rank: 30.
- **National Scholarship** from Government of India, (1999-2002).

### Membership

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- Life member (F/8095), Indian Chemical Society, Kolkata.

### Course Taught

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- Chemistry (1<sup>st</sup> B. Tech- Common)
- Instrumental Methods for Environmental Analysis (V<sup>th</sup> B. Tech- Env Sc. & Engg.)
- Physical Chemistry (V<sup>th</sup> B. Tech- Pet. Engg.)
- Chemistry I (1<sup>st</sup> B. Tech- Preparatory)
- Instrumental Techniques in Chemistry I (JRF course)
- Organic Reaction, Mechanism & Stereochemistry (Msc, 1<sup>st</sup> sem)
- Synthetic Organic Chemistry (Msc, 2<sup>nd</sup> sem)
- Application of Spectroscopic Methods (Msc, 3<sup>rd</sup> sem)
- Modern Methods in Organic Synthesis (Msc, 3<sup>rd</sup> sem)
- Heterocyclic Chemistry (Msc, 4<sup>th</sup> sem)
- Advanced Methods in Organic Synthesis (JRF course)

### Research Interests

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- Organo-Catalysis
- Photo-Redox Catalysis
- Synthetic Methodology Development
- Total Synthesis of Natural Products

### Reviewer of Journals

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- ACS: ACS-Catalysis; Org. Lett; J. Org. Chem.
- RSC: Org. Biomol. Chem.; RSC Advances.
- Elsevier: Tet. Lett.; Cat. Commun.
- Wiley: Asian J. Org. Chem.; Chemistry Select.

### Details of R&D Projects

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| SL. No. | Title                                                          | PI           | Funding Agency | Duration       | Amount Sanctioned |
|---------|----------------------------------------------------------------|--------------|----------------|----------------|-------------------|
| 1.      | Metal Free Generation of N-Centered Iminyl Radicals: Synthesis | Dr. Soumitra | IIT-ISM        | 2 Years (2018- |                   |

|    |                                                                                                                                    |                    |                  |                       |             |
|----|------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|-----------------------|-------------|
|    | of Nitrogen-Heterocycles                                                                                                           | Maity              | (TEQIP-III)      | 2020)                 | 2.0 lakhs   |
| 2. | Photocatalytic Construction of C-C and C-X Bonds via Visible Light Mediated Cross-Coupling Reactions: Synthesis of N-Heterocycles. | Dr. Soumitra Maity | DST-SERB         | 3 Years (2016-2019)   | 33.0 lakhs  |
| 3. | Metal Free Oxidative C-N Bond Formation: Synthesis of N-Heterocycles.                                                              | Dr. Soumitra Maity | DST-INSPIRE      | 5+1 Years (2014-2020) | 35.0 lakhs  |
| 4. | Functionalization of Simple Olefins by Visible Light Photoredox Catalysis.                                                         | Dr. Soumitra Maity | IIT(ISM)-Dhanbad | 3 Years (2015-2018)   | 10.55 lakhs |

### Supervision

#### i) Ph.D. Supervision

| Ph.D. Scholars           |                   |                              |                                |
|--------------------------|-------------------|------------------------------|--------------------------------|
| Sl. No.                  | Admission No.     | Name                         | Year                           |
| 1                        | 2015DR0301        | Mr. Soumyadeep Roy Chowdhury | Degree awarded, 2021 (ISM-JRF) |
| 2                        | 16DR000248        | Mr. Injamam Ul Hoque         | On-going (DST-INSPIRE SRF)     |
| 3                        | 17DR000335        | Mr. Deepak Singh             | On-going (ISM-JRF)             |
| 4                        | 18DR0171          | Mr. Shyamal Pramanik         | On-going (CSIR-SRF)            |
| 5                        | 19DR0018          | Mr. Apurba Samanta           | On-going (ISM-JRF)             |
| 6                        | 20DR0148          | Mr. Subhashis Mondal         | On-going (CSIR-SRF)            |
| 7                        | 22DR0160          | Mr. Partha Pratim Mondal     | On-going (Project-JRF)         |
| 8                        | 22DR0243          | Mr. Saradindu Debnath        | On-going (PMRF-JRF)            |
| Project/Research Fellows |                   |                              |                                |
| 1                        | Md. Intekhab Alam |                              | 2016-17                        |
| 2                        | Mr. Pulak Fadikar |                              | 2015-16                        |
| 3                        | Mr. Chandan Bose  |                              | 2015-16                        |
| 4                        | Mr. Tridev Ghosh  |                              | 2014                           |

**ii) UG/PG Project Supervision**

| <b>M.Sc. Dissertations</b> |              |                        |                    |
|----------------------------|--------------|------------------------|--------------------|
| 1                          | 21MT0375     | Mr. Saurabh Sharma     | On-going (2022-23) |
| 2                          | 21MS0063     | Mr. Hriday Maji        | On-going (2022-23) |
| 3                          | 21MS0096     | Mr. Prafulla Bera      | On-going (2022-23) |
| 4                          | 21MS0103     | Ms. Prerana Banerjee   | On-going (2022-23) |
| 5                          | 20MT0438     | Mr. Vignesh Babu B     | 2021-2022          |
| 6                          | 20MT0232     | Mr. Mukesh Kumar       | 2021-2022          |
| 7                          | 20MS0072     | Ms. Nikita Gupta       | 2021-2022          |
| 8                          | 20MS0130     | Mr. Soham Chakraborty  | 2021-2022          |
| 9                          | 20MS0148     | Mr. Tarun              | 2021-2022          |
| 10                         | 19MS0015     | Mr. Arijit Chakraborty | 2020-2021          |
| 11                         | 19MS0046     | Ms. Jonali Rabha       | 2020-2021          |
| 12                         | 19MS0124     | Suparnak Midya         | 2020-2021          |
| 13                         | 19MS0128     | Surajit Das            | 2020-2021          |
| 14                         | 18MS0076     | Mr. Subhashis Mondal   | 2019-2020          |
| 15                         | 18MS0017     | Mr. Sayan Dey          | 2019-2020          |
| 16                         | 17MS000527   | Mr. Sudip Dey          | 2018-2019          |
| 17                         | 17MS000490   | Mr. Subrata Das        | 2018-2019          |
| 18                         | 17MS000481   | Mr. Nandan Kumar       | 2018-2019          |
| 19                         | 16MS000296   | Mr. Goutam Mandal      | 2017-2018          |
| 20                         | 16MS000299   | Ms. Ruma Rajwar        | 2017-2018          |
| 21                         | 16MS000359   | Mr. Sharajit Saha      | 2017-2018          |
| 22                         | 15MS000245   | Mr. Debashis Maity     | 2016-2017          |
| 23                         | 15MS000208   | Mr. Susanta Pan        | 2016-2017          |
| 24                         | 15MS000241   | Mr. Debjyoti Pal       | 2016-2017          |
| 25                         | 15MS000209   | Ms. Ankita Paul        | 2016-2017          |
| 26                         | 15MS000162   | Mr. Jagabandhu Sahoo   | 2016-2017          |
| 27                         | 2014MS000046 | Ms. Mansi Sharma       | 2015-2016          |
| 28                         | 2014MS000113 | Ms. Paramita Koley     | 2015-2016          |
| 29                         | 2012MS0063   | Mr. Kartik Adak        | 2014-2015          |
| <b>Summer Trainee</b>      |              |                        |                    |
| 1                          | 17MS000490   | Mr. Subrata Das        | 2018               |
| 2                          | 15MS000191   | Mr. Motahar Sk         | 2016               |
| 3                          | 15MS000245   | Mr. Debashis Maity     | 2016               |
| 4                          | 15MS000251   | Mr. Anindya Roy        | 2016               |

Internation-18, National-01

### **Selected:**

- “Zinc Acetate-Promoted Blocking of ATRA Process with Alkyl Halides Enabling Photochemical Alkylamination of Olefins” A. samanta, S. Pramanik, S. Mondal and S. Maity\*, *Chem. Commun.*, **2022**, 58, 8400.
- “Organic Dye-Catalyzed Intermolecular Radical Coupling of  $\alpha$ -Bromocarbonyls with Olefins: Photocatalytic Synthesis of 1, 4-Ketocarbonyls Using Air as an Oxidant” S. Roy Chowdhury, D. Singh, I. Ul Hoque, and S. Maity\*, *J. Org. Chem.*, **2020**, 85, 13939.
- “Photoredox-Catalyzed Intermolecular Radical Arylthiocyanation/ Arylselenocyanation of Alkenes: Access to Aryl-Substituted Alkylthiocyanates /Alkylselenocyanates" I. Ul Hoque, S. Roy Chowdhury and S. Maity\*, *J. Org. Chem.*, **2019**, 84, 3025-3035.

**Highlighted in:** \* *Featured Article*

\* *Journal Cover Art: volume 84, Issue 6, March 15, 2019.*

- “TBAI/TBHP-Promoted Generation of Malonyl Radicals: Oxidative Coupling with Styrenes Leads to  $\gamma$ -Keto Diesters" S. Roy Chowdhury, I. Ul Hoque and S. Maity\*, *Chem. Asian. J.*, **2018**, 13, 2824.
- “A visible-light-mediated oxidative C-N bond formation/aromatization cascade: Photocatalytic preparation of N-Arylindoles” Soumitra Maity and Nan Zheng\*, *Angew. Chem. Int. Ed.*, **2012**, 51, 9562.
- “Intermolecular [3+2] Cycloaddition of Cyclopropylamines with Olefins by Visible-Light Photocatalysis” Soumitra Maity, Mingzhao Zhu, Ryan Spencer Shinabery and Nan Zheng\*, *Angew. Chem. Int. Ed.*, **2012**, 51, 222.

**Highlighted in:** \* *Science Daily*

\* *Synform 2012/4.*

### **Poster and Paper Presentation**

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- National conference on “Recent Developments in Chemistry-2018” at NIT Durgapur (17–19th Dec, 2018) poster presentation by Injamam Ul Hoque from our group and selected the best poster award.
- XIV J-NOST Conference for Research Scholars, CSIR-IICT, Hyderabad (28th November–1st December, 2018) oral presentation by Soumyadeep Roy Chowdhury from our group.
- APCC International Seminar, A.P. C college (6–7th August, 2018) poster presentation by Soumyadeep Roy Chowdhury from our group and selected the best poster award.
- III J-NOST Conference for Research Scholars, GNDU, Amritsar (November’15-18,

2007) oral presentation.

- Poster presentation at NSCT in Chemistry, University of Kalyani, India, Jan'30-31, 2007.

### ***Invited Lecture***

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- Recent Trends in Chemical Sciences (RTCS-2018), Surendranath Evening College, Kolkata, 05-06<sup>th</sup> October'2018.