

CV of Prof. Swadhin K Mandal

Dr. Swadhin K Mandal, FRSC

Professor and Head

Department of Chemical Sciences

Indian Institute of Sciences Education and Research Kolkata

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Personal: Nationality: Indian

Academic and Professional Career

Current Position: Professor (since 2018 October), Department of Chemical Sciences, IISER Kolkata and

Associate Professor (2013, December–2018, October): Department of Chemical Sciences, Indian Institute of Science Education and Research Kolkata

Assistant Professor (2007 July-2013 December): Department of Chemical Sciences, Indian Institute of Science Education and Research Kolkata

Alexander von Humboldt Postdoctoral Fellow (2006-2007) with Prof Herbert W Roesky: University of Goettingen, Germany.

Postdoctoral Fellow (2002- 2006) with Prof. Robert C Haddon: University of California, Riverside, USA.

Ph.D. (1996-2002): Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore, India. Supervisor: Prof. S S Krishnamurthy

M.Sc. (Chemistry, 1994-1996): University of Kalyani, Kalyani, India. (Secured 1st rank in the University)

B.Sc. (Chemistry, 1990-1994): University of Kalyani, Kalyani, India. (Secured 3rd rank in the University)

Awards and Professional Recognition:

◆ *Shanti Swarup Bhatnagar Prize in Chemical Sciences for 2018*

◆ Invited as *Editorial Advisory Board member* of the journal 'Inorganic Chemistry' published by the American Chemical Society during 2019-2022

◆ Fellow of Royal Society of Chemistry (FRSC) under the "Leaders in the Field" category.

◆ Awarded with SERB Distinguished Investigator Award.

◆ CRSI bronze medal, 2019

◆ Editorial advisory board member *J. Chem Sci.* since 2018

◆ *YIM-Young Scientist Award -2012* by YIM-Boston held during 6-8th October, 2012 at MIT, Boston, USA.

◆ Served as *Editorial Advisory Board member* of the journal 'Organometallics' published by the American Chemical Society during 2013-2015

◆ Alexander von Humboldt fellowship (2006).

Human Resource Development:

Current PhD Students: 12

PhD Degree obtained: 8

Current Postdoc: 1 (Postdoc worked: 12)

Current BS-MS Thesis students: 4 (completed : 6)

Several Summer students

Selected List of Publications

Mrinal Bhunia, Sumeet Ranjan Sahoo, Bikash Kumar Shaw, Shefali Vaidya, Anand Pariyar, Gonela Vijaykumar, Debashis Adhikari and <u>Swadhin K. Mandal</u>	<i>Storing redox equivalent in the phenalenyl backbone towards catalytic multi-electron reduction</i>	<i>Chemical Science, 2019, in press</i>
Samaresh Chandra Sau, Rameswar Bhattacharjee, Pavan K Vardhanapu Pradip Kumar Hota; G Vijaykumar; R. Govindarajan; Ayan Datta and <u>Swadhin K Mandal</u>	<i>Metal-Free Capture of CO₂ from Air and its Reduction into Alternative Fuel under Ambient Conditions</i>	<i>Chemical Science, 2019, 10, 1879-1884.</i>
Pradip K. Hota, Samaresh C. Sau and <u>Swadhin K Mandal</u>	<i>Metal-Free Catalytic Formylation of Amides Using CO₂ under Ambient Conditions</i>	<i>ACS Catal. 2018, 8, 11999-12003.</i>
Jasimuddin Ahmed, Soumi Chakraborty, Anex Jose, Sreejyothi P and <u>Swadhin K Mandal</u>	<i>Integrating Organic Lewis Acid and Redox Catalysis: The Phenalenyl Cation in Dual Role</i>	<i>J. Am. Chem. Soc., 2018, 140, 8330-8339.</i>
1.Gonela Vijaykumar, Anand Pariyar, Jasimuddin Ahmed, Debashis Adhikari and <u>Swadhin K Mandal</u>	<i>Tuning Redox Non-innocence of Phenalenyl Ligand toward Efficient Base-Metal Assisted Catalytic Hydrosilylation</i>	<i>Chemical Science, 2018, 9, 2817-2825.</i>

.Jasimuddin Ahmed Sreejyothi P, Gonela Vijaykumar, Anex Jose, Manthan Raj and <u>Swadhin K Mandal</u>	<i>New Face of Phenalenyl Based Radical in Transition Metal Free C-H Arylation of Heteroarenes at Room Temperature: Trapping the Radical Initiator via C-C σ Bond Formation</i>	<i>Chemical Science</i>, 8, 2017, 7798-7806
1.Arup Mukherjee, Samresh Chandra Sau and <u>Swadhin K Mandal</u>	<i>Exploring Closed-Shell Cationic Phenalenyl: From Catalysis to Spin Electronics</i>	<i>Acct. Chem. Res.</i> 2017, 50, 1679-1691.
Nimish Gupta, Jhony Kancharla; Shelly Kaushik; Aasif Ansari; Samad Hossain; Ravindar Goyal; Manoj Pandey; Jowala Sivaccumar; Sajid Hussain; Arindam Sarkar; Aniridhha Sengupta; <u>Swadhin K Mandal</u> ; Monideepa Roy; Shiladitya Sengupta	<i>Development of an antibody-drug conjugate platform using platinum as a linker</i>	<i>Chemical Science</i> 8, 2017, 2387-2395.
Samaresh Ch. Sau; Rameswar Bhattacharjee; Pavan K. Vardhanapu; Gonela Vijaykumar; Ayan Datta; <u>Swadhin K Mandal</u>	<i>Metal Free Reduction of CO₂ to Methoxyborane Under Ambient Conditions through Borondiformate Formation</i>	<i>Angew. Chem. Int. Ed.</i> 55, 2016, 15147 – 15151
Anand Pariyar; Gonela Vijaykumar; Suman K. Dey; Santosh Kumar Singh; Sreekumar Kurungot; <u>Swadhin K Mandal</u>	<i>Switching Closed-Shell to Open-Shell Phenalenyl: Toward Designing Electroactive Materials</i>	<i>J. Am. Chem. Soc.</i> 137, 2015, 5955-5960
Sudipta Raha Roy; A. Nijamudheen; Anand Pariyar; Anup Ghosh; Pavan K. Vardhanapu; Prasun K. Mandal; Ayan Datta; <u>Swadhin K. Mandal</u>	<i>Phenalenyl in Different Role: Catalytic Activation through the Nonbonding Molecular Orbital</i>	<i>ACS Catalysis</i> 4, 2014, 4307–4319
Subhankar Santra; Pradip Kumar Hota; Rangeet Bhattacharyya; Parthasarathi Bera; Prasenjit Ghosh; <u>Swadhin K Mandal</u>	<i>Palladium Nanoparticles on Graphite Oxide: Highly Recyclable Catalyst for the Synthesis Biaryl Cores</i>	<i>ACS Catalysis</i>, 3, 2013, 2776–2789
Karthik V. Raman, Alexander M. Kamerbeek, Nicolae Atodiresei, Arup Mukherjee, Tamal K. Sen, Predrag Lazić, Vasile Caciuc, Reent Michel, Dietmar Stalke, <u>Swadhin K. Mandal</u> , Stefan Blügel, Markus Münzenberg, Jagadeesh S. Moodera	<i>Interface-engineered templates for molecular spin memory devices</i>	<i>Nature</i>, 493, 2013, 509–513

Arup Mukherjee; Sharanappa Nembenna; Tamal Kumar Sen; S. P. Sarish; Pradip K Ghorai; Ott, H.; Dietmar Stalke; Swadhin K Mandal; Herbert W. Roesky	<i>Assembling Zirconium and Calcium Moieties through an Oxygen Center for Intramolecular Hydroamination Reaction: A Single System for Double Activation</i>	<i>Angew. Chem. Int. Ed. 50, 2011, 3968–3972</i>
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