CURRICULUM VITAE

DR. RAJIV KARMAKAR

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DESIGNATION

Assistant Professor of Chemistry, Dum Dum Motijheel College, Kolkata-700074

ACADEMIC BACKGROUND

- Ph.D. (Chemistry), Jadavpur University, West Bengal, 2014.
- M.Sc. (Chemistry), Indian Institute of Technology–Kharagpur, 2008.

POSITIONS HELD/ HOLDING

- 2017–Present : Assistant Professor, Dum Dum Motijheel College
- 2015–2017 : UGC-D. S. Kothari Fellow, Department of Chemistry, University of Calcutta
- 2011–2014 : CSIR-Senior Research Fellow, Department of Chemistry, Jadavpur University
- 2009–2011 : CSIR-Junior Research Fellow, Department of Chemistry, Jadavpur University

TEACHING INTEREST

❖ Synthetic Organic Chemistry, General Chemistry, Bioorganic Chemistry, Physical Chemistry.

RESEARCH PROFILE

Post Doctoral Research:

Designing, Characterization and Application of highly functionalized silica based organo-catalysts towards selective organic transformation.

Supervisor: Prof. Chhanda Mukhopadhyay, Department of Chemistry, University of Calcutta.

Ph.D. Thesis:

Synthesis of Biologically Active Heteocycles and related Compounds.

Supervisor: Prof. Gourhari Maiti, Department of Chemistry, Jadavpur University.

PUBLICATIONS:

Journal Paper:

1. **Karmakar, R.** and Mukhopadhyay, C. (2018): Regio- and stereoselective multicomponent Synthesis of novel Chromeno-annulated Pyrrolizine and thiazolizine Scaffolds via 1,3-dipolar cycloaddition reactions. *Chemistry Select*: 3, 5881-5886.
2. **Karmakar, R.**, Bhaumik, A., Banerjee, B. and Mukhopadhyay, C. (2017): Cascade Synthesis of Selective Dihydro Pyridazino Fused Acridinone Derivatives *via* MCM-41 Catalyzed Ring-Opening/ Ring-Closure Reaction. *Tetrahedron Letters*, 58: 622-628.
3. Banerjee, D., **Karmakar, R.**, Kayal, U. and Maiti, G. (2017): One-pot efficient pseudo-five-components synthesis of 4, 4′-(arylmethylene)bis(3-methyl-1-phenyl-1*H*-pyrazol-5-ols) at room temperature assisted by K_2CO_3. *Synthetic Communications*, 47: 1-7.
4. Kundu, P., Ghosh, S., **Karmakar, R.**, Maiti, G. and Chattopadhyay, N. (2016): Impact of Structural Modification on the Photophysical Response of Benzoquinoline Fluorophores. *Journal of Fluorescence*, 26: 845-854.
5. Banerjee, D., Kayal, U., **Karmakar, R.** and Maiti, G (2014): 3,4-Dihydro-2H-pyran promoted aerobic oxidative aromatization of 1,3,5-tri-substituted pyrazolines and Hantzsch 1,4-dihydropyridines. *Tetrahedron Letters*, 55: 5333-5337.

6. **Karmakar, R.**, Kayal, U., Bhattacharya, B. and Maiti, G. (2014): One pot three component reaction for synthesis of biologically important spiro[benzo[f]quinoline- 3,3'- indoline] derivatives. Tetrahedron Letters, 55: 1370-1372.
7. Kayal, U., Karmakar, R., Banerjee, D. and Maiti, G. (2014): Copper oxide catalyzed domino process for the synthesis of substituted 2*H*-pyran-2-ones and polyhydroxy coumarin derivatives. *Tetrahedron*, 70: 7016-7021
8. Maiti, G., Kayal, U., Karmakar, R. and Bhattacharya, R.N. (2013): An efficient one pot conversion of alkynes to bis(indolyl) and bis(pyrrolyl)alkanes in aqueous ethanol. *Indian Journal of Chemistry*, 51B: 122-128.
9. Maiti, G., **Karmakar, R.** and Kayal, U. (2013): One pot imino Diels-Alder reaction for the synthesis of 3-aryl-3,4-dihydrobenzo[*f*]quinoline derivatives catalyzed by antimony trichloride. *Tetrahedron Letters*, 54: 2920-2923.
10. Maiti, G., Kayal, U., **Karmakar, R.** and Bhattacharya, R.N. (2012): Terminal alkynes as keto-methyl equivalent toward one pot synthesis of 1,5-benzodiazepine derivative under catalysis of $Hg(OTf)_2$. *Tetrahedron Letters*, 53: 1460-1463.
11. Maiti, G., Bhattacharya, R. N. and **Karmakar, R.** (2012): Antimony trichloride: A mild and efficient reagent for chemoselective ring opening of oxiranes. *Indian Journal of Chemistry*, 51B: 302-307.
12. Maiti, G., Kayal, U., **Karmakar, R.** and Bhattacharya, R.N. (2012): An unexpected rearrangement-hydration sequence of 2*H*- chromenes to dihydrochalcones under catalysis of $HAuCl_4$. *Tetrahedron Letters*, 53: 6321-6325.
13. Maiti, G., **Karmakar, R.**, Kayal, U. and Bhattacharya, R.N. (2012): An efficient route to coumarin derivatives under dual catalysis, an organo- and a Lewis acid catalyst. *Tetrahedron*, 68: 8817-8822.
14. Maiti, G., **Karmakar, R.**, Bhattacharya, R. N. and Kayal, U. (2011): A novel one pot route of flavones under dual clatalysis, an organo- and a Lewis acid catalyst. *Tetrahedron Letters*, 52: 5610-5612.

NUMBER OF SEMINAR PRESENTATIONS:

- International: **1**; National: **4**

NUMBER OF WORKSHOP/ CAPACITY BUILDING COURSE PARTICIPATIONS:

- National: **3**, State Level: **1**

AWARDS

- Cleared Graduate Aptitude Test in Engineering (GATE) in Chemistry, 2008.
- Awarded 'Junior Research Fellowship (JRF)' and declared eligible for Lectureship (NET) in the subject of *Chemical Science* in the Joint CSIR-UGC Test for *Junior Research Fellowship* and *Eligibility for Lectureship (NET)* held in 2008.
- Awarded UGC-Dr. D.S. Kothari Postdoctoral Fellowship in 2015.