

Curriculum Vitae

Dr. Raj Kumar Nandi

Assistant Professor

Department Of Chemistry

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Academic Appointments:

<i>Feb. 2019-till date</i>	Assistant Professor (Department Of Chemistry, DHWU)
<i>May 2017- Oct. 2018</i>	EPF Lausanne, Switzerland Postdoctoral research scientist (with Prof. Jérôme Waser)
<i>Feb 2015-Feb. 2017</i>	Université Paris-Sud (Université Paris Saclay) Orsay, France Marie Curie Postdoctoral research scientist, (With Dr. Guillaume Vincent and Prof. CyrilleKouklovsky.)
<i>April 2014-Dec. 2014</i>	Kobe Pharmaceutical University, Kobe, Japan Postdoctoral Research Associate (With Prof. Okiko Miyata.)
<i>Oct. 2008-Jan. 2014</i>	University of Kalyani, India, (CSIR Fellow) PhD in chemistry (With Prof. K. C. Majumdar.)

Education:

- **Ph.D. 2014 (January)** University of Kalyani, India (**With: Professor K. C. Majumdar**)
- **Master of Science (Organic division), 2008**, University of Kalyani, West Bengal, India.
- **Bachelors of Science, 2006**, University of Kalyani (Chakdaha College), West Bengal, India.

Award

- **2018:** Best oral presentation at ICCHD-2018.
- **2017:** Scientific Collaborator Position at EPFL, Switzerland.
- **2015:** Postdoctoral position at Université Paris Sud, France.
- **2014:** Marie Curie International Incoming Fellowship by REA-European Commission FP7 framework Programme.
- **2013:** KPU-Postdoctoral fellowship, Japan
- **2008:** CSIR-National Eligibility Test Awarded JRF(UGC) (CSIR-UGC-New Delhi)
- **2008:** First Class second in Master of Science (University of Kalyani, India)
- **2008:** Graduate Aptitude Test in Engineering (GATE), **2008**, AIR-55, 99.12 percentile
- **2007:** CSIR-National Eligibility Test Awarded JRF(UGC) (CSIR-UGC-New Delhi)
- **2007:** Professor Ashima Chatterjee endowment silver medal for obtaining 1st Class first position in B.Sc examination (University of Kalyani, India)
- **2006:** First Class First in Bachelor of Science (University of Kalyani, India)

Research Interest:

My present research interest is mainly based on Synthesis Organic chemistry and chemical biology.

- Development of New Synthetic Methodology
- Synthesis of small organic molecules in Biological interest
- Indole Chemistry
- Hypervalent Iodine Chemistry
- Bioorthogonal Chemistry
- Medicinal Chemistry

Teaching Interest:

- Organometallic Chemistry
- Stereochemistry/ Asymmetric Synthesis
- NMR spectroscopy
- Pericyclic Reaction and Photo Chemistry
- Synthetic Methodology/ Reagent Chemistry
- Bio-Organic Chemistry

Membership:

French Chemical Society (SCF), Swiss Chemical Society (SCS), Marie Curie Alumni Association (MCAA).

RESEARCH PUBLICATIONS (selected):

- [1] [Nandi, R. K.](#); Caramenti, P.; Waser, J. "Metal-Free Oxidative Coupling for the synthesis of mixed bi-(hetero)arenes". *Chem. Eur. J.* **2018**, *24*, 10049-10053. (**Highlighted in Synfacts 2018; 14, 0806**). (**Equal contribution in First authorship with PC**).
- [2] Wu, J.; [Nandi, R. K.](#); Guillot, R.; Kouklovsky, C.; Vincent, G. "Dearomative Diallylation of N-Acyl Indoles Mediated by FeCl₃". *Org. Lett.*, **2018**, *20*, 1845-1849.
- [3] [Nandi, R. K.](#); Luna, A. P.; Gori, D.; Beaud, R.; Guillot, R.; Kouklovsky, C.; Gandon, V.; Vincent, G*. "Triflic acid as an efficient Brønsted acid promoter for the Umpolung of N-Ac indoles in hydroarylation reactions." *Adv. Synth. Catal.* **2018**, *360*, 161-172
- [4] [Nandi, R. K.](#); Beaud, R.; Luna, A. P.; Guillot, R.; Gori, D.; Kouklovsky, C.; Ghermani, N.-E.; Gandon, V.; Vincent, G*. "Revealing the Electrophilicity of N-Ac Indoles with FeCl₃: A Mechanistic Study." *Chem. Commun.*, **2017**, *53*, 5834-5837. ((**Equal contribution in First authorship with BR**).
- [5] [Nandi, R. K.](#); Guillot, R.; Kouklovsky, C.; Vincent, G*. "Synthesis of 3,3-Spiroindolines via FeCl₃-Mediated Cyclisation of Aryl or Alkene-Containing 3-Substituted N-Ac Indoles." *Org. Lett.*, **2016**, *18*, 1716-1719. (**Highlighted in Synfacts 2016, 12, 0621**)
- [6] [Nandi, R. K.](#); Ratsch, F.; Beaud, R.; Guillot, R.; Kouklovsky, C.; Vincent, G*. "Intermolecular dearomative C2-arylation of N-Ac indoles activated by FeCl₃." *Chem. Commun.*, **2016**, *52*, 5328-5331.
- [7] [Nandi, R. K.](#); Takeda, N.; Ueda, M.; Miyata, O*. "Nucleophilic β -alkenylation of N-alkoxyenamines: An umpolung strategy for the preparation of β,γ -unsaturated ketones." *Tetrahedron Lett.* **2016** *57*, 2269-2272.
- [8] Majumdar, K. C*.; [Nandi, R. K.](#); Ganai, S. "Synthesis of phosphorus containing medium ring heterocycles by sequential Claisen rearrangement and ring closing metathesis" *Tetrahedron Lett.* **2014**, *55*, 1247-1250. (**Highlighted in ChemInform**)
- [9] Majumdar, K. C*.; [Nandi, R. K.](#) "The Claisen rearrangement in the syntheses of bioactive natural products" *Tetrahedron* **2013**, *69*, 6921-6957. (**Highlighted in ChemInform**) (Review)
- [10] Majumdar, K. C*.; [Nandi, R. K.](#); Ray, K. "Formation of Five- and Six-Membered Heterocyclic Compounds by Ring-Closing Metathesis" *Advances in Organic Synthesis*, **2013**, Vol. 6, 355-435. (**Book Chapter**)
- [11] Majumdar, K. C*.; [Nandi, R. K.](#); Ponra, S. "Indium (III) Chloride Catalyzed Convergent, Regioselective Synthesis of Annulated Quinoline and Pyridine Derivatives." *Synlett*, **2012**, *23*, 113-119. (**Highlighted in ChemInform**)
- [12] Majumdar, K. C*.; Ponra, S.; [Nandi, R. K.](#) "BF₃·OEt₂-Mediated 1,3-Hydride Shift Followed by 6 π Electrocyclization: An Efficient Route for the Synthesis of Pyridopyrimidine,

- Pyranoquinoline, and Phenanthroline Derivatives" *Eur. J. Org. Chem.* **2011**, 34, 6909–6915. (*Highlighted in ChemInform*)
- [13]Majumdar, K. C*.;Ganai. S.; [Nandi, R. K.](#) "Regioselective synthesis of pyrimidine-annulated spiro-dihydrofurans by silver-catalyzed 5-endo-dig cyclization" *New J. Chem.*, **2011**, 35, 1355–1359. (*Highlighted in ChemInform*)
- [14]Majumdar, K. C*.; [Nandi, R. K.](#); Ganai. S.; Taher. A. "Regioselective Synthesis of AnnulatedQuinoline and Pyridine Derivatives by Silver-Catalyzed 6-endo-dig Cycloisomerization." *Synlett.***2011**,1, 116-120. (*Highlighted in ChemInform*)
- [15]Majumdar, K. C*.;[Nandi, R. K.](#); Samanta. S.; Chattopadhyay, B. "Novel Synthesis of Heterocycle-Annulated Azocine Derivatives of Biological Relevance by Aromatic aza-Claisen Rearrangement and Intramolecular Heck Reaction" *Synthesis*, **2010**, 6, 985-990. (*Highlighted in ChemInform*)
- [16]Majumdar, K. C*, Taher, A.; [Nandi, R. K.](#) "Synthesis of heterocycles by domino-Knoevenagel hetero-Diels-Alder reactions" *Tetrahedron*, **2012**, 68, 5693-5718. (*Highlighted in ChemInform*) (Review)
- [17]Majumdar, K. C*.;Ponra. S.; [Nandi, R. K.](#) "One pot efficient green synthesis of spirooxindole-annulated thiopyran derivatives via Knoevenagel Condensation followed by Michael addition" *Tetrahedron Lett.***2012**, 53, 1732–1737. (*Highlighted in ChemInform*)
- [18]Majumdar, K. C*.;Ganai. S.; [Nandi, R. K.](#); Ray. K. "Catalyst-free synthesis of Coumarin, Quinolone and Pyridine annulated oxazole derivatives" *Tetrahedron Lett.***2012**. 53, 1553–1557. (*Highlighted in ChemInform*)
- [19]Majumdar, K. C*.;Taher, A.; [Nandi, R. K.](#) "Copper(II) Acetate Promoted Intramolecular Carboamination of Alkenes: An Efficient Synthesis of Pentacyclic Sultams." *Synlett* **2010**, 9, 1389-1393. (*Highlighted in ChemInform*)
- [20]Majumdar, K. C*.;Samanta. S.; [Nandi, R. K.](#); Chattopadhyay, B. "Palladium-catalyzedregioselective oxidative amination of alkenes: an efficient route to the synthesis of pyrrolocoumarin and pyrroloquinolone derivatives" *Tetrahedron Lett.* **2010**, 51, 3807-3810. (*Highlighted in ChemInform*)
- [21]Roy, S.; [Nandi, R. K.](#); Ganai, S.; Majumdar, K. C*.; Das. T. K*. "Binding interaction of phosphorus heterocycles with bovine serum albumin: A biochemical study" *Journal of Pharmaceutical Analysis* **2017** ,7, 19–26 (*Collaborative Work*)

Presented Work in International Conferences:

- Presented a poster at the **SCS-18 Fall meeting** September 7, 2018, EPFL Switzerland.
- Presented an oral communication on **ICCHD-20188-10th** January at Heritage Institute of Technology-Kolkata, India.
- Presented a poster and Flash oral presentation on **24th Young Researcher Fellow Meeting** 8-10 February 2017 School of Pharmacy, Châtenay-Malabry, France,
- Presented a poster at the **ICOS-21** December 11-16, 2016 at IIT-Bombay, India.
- Presented an oral communication at the **Journées de Chimie Organique 2016**September 7-9, 2016 at Ecole Polytechnique, Palaiseau, France.
- Presented a poster at the **15thBelgian Organic Synthesis Symposium** July 10-15, 2016 at the University Antwerp, Belgium.
- Presented a poster at the **14thedition of the RCO** on May 4th 2016 at the University Paris 13, France.
- Presented a poster at the **The Ninth International Symposium on Integrated Synthesis (ISIS-9)** entitled "α-Alkenylation of ketones: An umpolung strategy for the synthesis of β-γ-unsaturated ketones" November 14-15, 2014, Hyogo, Japan.
- Presented an invited talk on "*Metal mediated synthesis of heterocyclic compounds with potential bioactivity*" at **Kobe University** at Japan on July 19, 2014.