

## Complete List of Publications, Patents, and Conference Abstracts

### A) Publications (29)

Citations: 661; *h*-Index: 15; *i10*-index: 18 (Sept, 2017)

<https://scholar.google.co.in/citations?user=rNibwvYAAAAJ&hl=en&authuser=2>

- 1) **Dinesh Kumar**, Sandeep Reddy Vemula, Narayanaganesh Balasubramanian, and Gregory R. Cook, "Indium-mediated stereoselective allylation," *Acc. Chem. Res.*, **2016**, *49*, 2169–2178; **IF 20.26**.
- 2) **Dinesh Kumar**, Sandeep Reddy Vemula, and Gregory R. Cook, "Merging C–H Bond Functionalization with Amide Alcoholysis: En Route to 2-Aminopyridines," *ACS Catal.*, **2016**, *6*, 3531–3533; **IF 10.61**.
- 3) Sandeep Reddy Vemula, **Dinesh Kumar**, and Gregory R. Cook, "Palladium catalyzed allylic amidation with *N*-heterocycles via sp<sup>3</sup> C–H oxidation," *ACS Catal.*, **2016**, *6*, 5295–5301; **IF 10.61**.
- 4) **Dinesh Kumar**, Sandeep R. Vemula, and Gregory R. Cook, "Recent advances in catalytic synthesis of  $\alpha$ -ketoamides," *ACS Catal.*, **2016**, *6*, 4920–4945; **IF 10.61**.
- 5) Pradeep S. Jadhavar, Tejas M. Dhameliya, Maulikkumar D. Vaja, **Dinesh Kumar**, Jonnalagadda Padma Sridevi, Perumal Yogeshwari, Dharmarajan Sriram, and Asit K. Chakraborti, "Synthesis, biological evaluation and structure–activity relationship of 2-styrylquinazolones as anti-tubercular agents," *Bioorg. Med. Chem. Lett.*, **2016**, *11*, 2663–2669; **IF 2.45**.
- 6) **Dinesh Kumar**, Sandeep Reddy Vemula, and Gregory R. Cook, "Highly chemo- and regioselective allylic substitution with tautomerizable heteroarenes," *Green Chem.*, **2015**, *17*, 4300–4306; **IF 9.12**.
- 7) **Dinesh Kumar**, Mohammad Mohsin Qadri, Md. Imam Ansari, Asim Kumar, and Asit K. Chakraborti, "In(OTf)<sub>3</sub>-Catalyzed synthesis of 2-styryl quinolines: Scope and limitations of metal Lewis acids for tandem Friedlander annulation-Knoevenagel condensation," *RSC Adv.*, **2015**, *5*, 2920–2927; **IF 3.10**.
- 8) **Dinesh Kumar**, Pradeep S. Jadhavar, Manesh Nautiyal, Himanshu Sharma, Prahlad K. Meena, Legesse Adane, Sahaj Pancholia, and Asit K. Chakraborti, "Convenient synthesis of 2,3-disubstituted quinazolin-4(3*H*)-ones and 2-styryl-3-substituted quinazolin-4(3*H*)-ones: Applications towards the synthesis of drugs," *RSC Adv.*, **2015**, *5*, 30819–30825; **IF 3.10**.

- 9) Babita Tanwar, Priyank Purohit, Banothu Naga Raju, **Dinesh Kumar**, Damodara N. Kommi, and Asit K. Chakraborti, "An "all-water" strategy for regiocontrolled synthesis of 2-aryl quinoxalines," *RSC Adv.*, **2015**, *5*, 11873-11883; **IF 3.10**.
- 10) Babita Tanwar, **Dinesh Kumar**, Asim Kumar, Mohammad Mohsin Qadri, Md. Imam Ansari, and Asit K. Chakraborti, "Friedländer annulation: Scope and limitations of metal salt Lewis acid catalysts in selectivity control for the synthesis of functionalised quinolines," *New J. Chem.*, **2015**, *39*, 9824-9833; **IF 3.27**.
- 11) Sandeep Reddy Vemula, **Dinesh Kumar**, and Gregory R. Cook, "N-Boc-glycine-assisted indium-mediated allylation reaction: A sustainable approach," *Tetrahedron Lett.* **2015**, *56*, 3322-3325; **IF 2.19**.
- 12) Amreen Mughal, **Dinesh Kumar**, and Ajit Vikram, "Effects of Thiazolidinediones on metabolism and cancer: Relative influence of PPAR $\gamma$  and IGF-1 signaling," *Eur. J Pharmacol.* **2015**, *768*, 217-225; **IF 2.89**.
- 13) **Dinesh Kumar**, Mukesh Sonawane, Brahmam Pujala, Varun K. Jain, Srikant Bhagat, and Asit K. Chakraborti, "Supported protic acid-catalyzed synthesis of 2,3-disubstituted thiazolidin-4- one: enhancement of the catalytic potential of protic acid by adsorption on solid support," *Green Chem.*, **2013**, *15*, 2872-2884; **IF 9.12**.
- 14) Damodara N. Kommi, **Dinesh Kumar**, and Asit K. Chakraborti, "All water chemistry for a concise total synthesis of the anti-anginal drug (*RS*), (*R*), and (*S*)-ranolazine," *Green Chem.*, **2013**, *15*, 756-767; **IF 9.12**.
- 15) Damodara N. Kommi, Pradeep S. Jadhavar, **Dinesh Kumar**, and Asit K. Chakraborti, "All water" one-pot diverse synthesis of 1,2-disubstituted benzimidazoles: hydrogen bond driven 'synergistic electrophile-nucleophile dual activation' by water," *Green Chem.*, **2013**, *15*, 798-810; **IF 9.12**.
- 16) Damodara N. Kommi, **Dinesh Kumar**, Kapileswar Seth, and Asit K. Chakraborti, "Protecting group-free concise synthesis of (*RS*)/(*S*)-lubeluzole," *Org. Lett.*, **2013**, *15*, 1158-1161; **IF 6.57**.
- 17) **Dinesh Kumar**, Kapileswar Seth, Damodara N. Kommi, Srikant Bhagat, and Asit K. Chakraborti, "Surfactant micelles as microreactors for the synthesis of quinoxalines in water: scope and limitations of surfactant catalysis," *RSC Adv.*, **2013**, *3*, 15157; **IF 3.10**.
- 18) **Dinesh Kumar**, Damodara N. Kommi, Raj Kumar, and Asit K. Chakraborti, "Selectivity control during supported protic acid catalyzed synthesis of 1,2-disubstituted benzimidazoles and mechanistic insight to rationalize selectivity," *RSC Adv.*, **2013**, *3*, 91-98; **IF 3.10**.

- 19) **Dinesh Kumar**, N. Kommi, Alpesh R. Patel, and Asit K. Chakraborti, "Catalytic procedures for multicomponent synthesis of imidazoles: Selectivity control during the competitive formation of tri- and tetra-substituted imidazoles," *Green Chem.*, **2012**, *14*, 2038-2049; **IF 9.12**.
- 20) Damodara N. Kommi, **Dinesh kumar**, Rohit Bansal, Rajesh Chebolu, and Asit K. Chakraborti, "All-water chemistry of tandem *N*-alkylation–reduction–condensation for synthesis of *N*-arylmethyl-2-substituted benzimidazoles," *Green Chem.*, **2012**, *14*, 3329-3335; **IF 9.12**; (Highlighted in RSC Blog by Mary Badcock, Development Editor, Green Chemistry).
- 21) Rajesh Chebolu, Damodara N. Kommi, **Dinesh Kumar**, Narendra Bolleni, and Asit K. Chakraborti, "Hydrogen-bond driven electrophilic activation for selectivity control: the scope and limitations of fluorous alcohol promoted selective formation of 1,2-disubstituted benzimidazoles and mechanistic insight for rational of selectivity," *J. Org. Chem.*, **2012**, *77*, 10158–10167; **IF 4.84**.
- 22) Anirban Sarkar, Sudipta Raha Roy, **Dinesh Kumar**, Chetna Madaan, Santosh Rudrawar, and Asit K. Chakraborti, "Lack of correlation between catalytic efficiency and basicity of amines during the reaction of aryl methyl ketones with DMF-DMA: supramolecular domino catalysis," *Org. Biomol. Chem.*, **2012**, *10*, 281-286; **IF 3.55**.
- 23) **Dinesh Kumar**, Damodara. N. Kommi, Pradeep Chopra, Md. Imam Ansari, and Asit K. Chakraborti, "L-Proline-catalyzed activation of methyl ketones or active methylene compounds and DMF-DMA for syntheses of (2*E*)-3-dimethylamino-2-propen-1-ones," *Eur. J. Org. Chem.*, **2012**, 6407–6413; **IF 2.83**.
- 24) Naisargee Parikh, **Dinesh Kumar**, Sudipta Raha Roy, and Asit K. Chakraborti, "Surfactant mediated oxygen reuptake in water for green aerobic oxidation: mass-spectrometric determination of discrete intermediates to correlate oxygen uptake with oxidation efficiency," *Chem. Commun.*, **2011**, *47*, 1797-1799; **IF 6.39**.
- 25) Sachin Bindal, **Dinesh Kumar**, Damodara N. Kommi, Sonam Bhatiya, and Asit K. Chakraborti, "Efficient organocatalytic dual activation strategy for preparation of the versatile synthons 2(*E*)-1-(het)aryl/styryl-3-(dimethylamino)prop-2-en-1-ones and  $\alpha$ -(*E*)-[(dimethylamino)methylele]cycloalkanones," *Synthesis*, **2011**, 1930-1935; **IF 2.65**; (Invited contribution for special issue on organocatalysis).
- 26) **Dinesh Kumar**, Raj Kumar and Asit K. Chakraborti, "Tetrafluoroboric acid adsorbed on silica gel as a reusable heterogeneous dual-purpose catalyst for conversion of aldehydes/ketones into acetals/ketals and back again," *Synthesis*, **2008**, 1249–1256; **IF 2.65**.

- 27) Asit K. Chakraborti, Sudipta Raha Roy, **Dinesh Kumar** and Pradip Chopra, "Catalytic application of room temperature ionic liquids for sustainable development: Butylmethylimidazolium sulfate ([bmim][MeSO<sub>4</sub>]) as a novel and recyclable catalyst for the synthesis of bis-indolylmethanes," *Green Chem.*, **2008**, *10*, 1111–1118; **IF 9.12**.
- 28) **Dinesh Kumar**, Santosh Rudrawar and Asit K. Chakraborti, "One-Pot synthesis of 2-substituted benzoxazoles directly from carboxylic acids," *Aust. J. Chem.*, **2008**, *61*, 881–887; **IF 1.47**.
- 29) Raj Kumar, **Dinesh Kumar** and Asit K. Chakraborti, "Perchloric acid adsorbed on silica gel (HClO<sub>4</sub>–SiO<sub>2</sub>) as an inexpensive, extremely efficient, and reusable dual catalyst system for acetal/ketal formation and their deprotection to aldehydes/ketones," *Synthesis*, **2007**, 0299–0303.

## **B) Book Chapters (01)**

Pradeep S. Jadhavar, **Dinesh Kumar**, Priyank Purohit, Bhavin V. Pipaliya, Asim Kumar, Srikant Bhagat, and Asit K. Chakraborti, Chapter Title: "Sustainable approaches towards the synthesis of quinoxalines," Book Title: Green Chemistry: Synthesis of Bioactive Heterocycles, DOI: 10.1007/978-81-322-1850-0, Online ISBN 978-81-322-1850-0, Publisher- Springer India

## C) Patent Applications (09)

- 1) Asit K. Chakraborti, Damodar N. Kommi, and **Dinesh Kumar** "Improved processes for the synthesis of Lubeluzole," **Indian Patent Appl. No. 1962/DEL/2012**, **Date of filing:**26/06/2012, **Date of Publication:** 27/12/2013.
- 2) Asit K. Chakraborti, **Dinesh Kumar** Santosh Rudraawar, Sachin Bindal, Himanshu Sharma, and Pradeep Chopra "Improved processes for synthesis of functionalized pyridines," **Indian Patent. Appl. No. 3245/DEL/2012**, **Date of filing:** 18/10/2012, **Date of Publication:**15/08/2014.
- 3) Asit K. Chakraborti, **Dinesh Kumar**, Mukesh Sonawane, and Brahmam Pujala "Processes for synthesis of 2,3-disubstituted-4-thiazolidinone," **Indian Patent Appl. No. 3148/DEL/2011**, **Date of filing:** 08/11/2011, **PCT International filing date:** 04/11/2011, **Date of Publication:** 10/05/2013.
- 4) Asit K. Chakraborti, **Dinesh Kumar**, and Tushar Satav "An improved acid catalyzed one-pot synthesis of 2-styryl quinoline," **Indian Patent Appl. No. 2673/DEL/2011**, **Date of filing:** 15/09/2011, **PCT International filing date:** 15/09/2011, **Date of Publication:** 15/03/2013.
- 5) Asit K. Chakraborti, **Dinesh Kumar**, and Himanshu Sharma "An improved process for one-pot synthesis of 2-styryl-4-(3H)-quinazolinones," **Indian Patent Appl. No. 2443/DEL/2011**, **Date of filing:** 26/08/2011, **PCT International filing date:** 26/08/2011, **Date of Publication:** 31/08/2016.
- 6) Asit K. Chakraborti, **Dinesh Kumar**, Sachin Bindal, and Damodar N. Kommi "An improved process for the synthesis of alkyl ester of carboxylic acid," **Indian Patent Appl. No 2176/DEL/2011**, **Date of filing:** 02/08/2011, **PCT International filing date:** 02/08/2011, **Date of Publication:** 11/10/2013.
- 7) Asit K. Chakraborti, **Dinesh Kumar**, Kapileshwar Seth, and Damodar N. Kommi "A green procedure for synthesis of functionalized compounds," **Indian Patent. Appl. No. 2023/DEL/2011**, **Date of filing:** 18/07/2011, **PCT International filing date:** 18/07/2011, **Date of Publication:** 25/01/2013.
- 8) Asit K. Chakraborti, Alpesh R. Patel, and **Dinesh Kumar** "An improved catalytic process for esterification of carboxylic acids," **Indian patent. Appl. No. 1046/DEL/2009**, **Date of filing:** 21/05/2009, **PCT International filing date:** 21/05/2009, **Date of Publication:** 25/11/2010.
- 9) Asit K. Chakraborti, Alpesh R. Patel, and **Dinesh Kumar** "An improved process for esterification using organic carbonates," **Indian Patent. Appl. No. 554/DEL/2009**, **Date of filing:** 23/03/2009, **PCT International filing date:** 23/03/2009, **Date of Publication:** 15/10/2010.

## D) Conference Presentations

### • Oral Presentations (02)

- 1) **Dinesh Kumar**, Sandeep Reddy Vemula and Gregory R. Cook, "Ruthenium catalyzed site selective olefinic C-H bond functionalization for chemo- and regioselective annulation reaction," [252nd ACS National Meeting in Philadelphia](#), PA, August 21-25, **2016**.
- 2) **Dinesh Kumar**, Sandeep Reddy Vemula and Gregory R. Cook, "Regio and chemoselective allylation of Heterocycles," [248th ACS National Meeting & Exposition](#), San Francisco, CA, United States, August 10-14, **2014**.

### • Poster Presentations (21)

- 1) **Dinesh Kumar**, Sandeep Reddy Vemula and Gregory R. Cook, "Synthesis of structural analogues of biologically active quinazolone alkaloids via vinylic C-H bond activation," [Frontiers in Biomedical Research Symposium](#), NDSU, Fargo, USA, June 3-4, **2016**.
- 2) **Dinesh Kumar**, Sandeep Reddy Vemula and Gregory R. Cook, "Sustainable approach for allylation of electron-deficient N-heterocycles," [NDSU-KU Joint Symposium on Biotechnology, Nanomaterials and Polymers](#)," NDSU, Fargo, USA, Oct. 15-16, **2015**.
- 3) Sandeep Reddy Vemula, **Dinesh Kumar**, and Gregory R. Cook, "Advancement towards catalytic indium mediated allylation," [Frontiers in Biomedical Research Symposium](#), NDSU, Fargo, USA, June 3-4, **2016**.
- 4) Sandeep Reddy Vemula, **Dinesh Kumar**, and Gregory R. Cook, "A green, catalytic approach for the metal mediated allylation of carbonyl compounds," [NDSU-KU Joint Symposium on Biotechnology, Nanomaterials and Polymers](#)," NDSU, Fargo, USA, Oct. 15-16, **2015**.
- 5) Sandeep Reddy V, **Dinesh Kumar**, Narayanaganesh Balasubramanian and Gregory R. Cook, "Main group metal-mediated enantioselective allylation of carbonyl compounds using substoichiometric amounts of metal," [248th ACS National Meeting & Exposition](#), San Francisco, CA, USA, August 10-14, **2014**.
- 6) Gregory R. Cook, Sandeep Reddy V, **Dinesh Kumar** and Narayanaganesh Balasubramanian, "New paradigm in enantioselective In-mediated allylation," [248th ACS National Meeting & Exposition](#), San Francisco, CA, USA, August 10-14, **2014**.

- 7) **Dinesh Kumar** and Asit K. Chakraborti, "Convenient and highly efficient synthesis of 2,4,5-trisubstituted imidazoles by 3-MCR catalysed by recyclable protic acid," [Prof. Ram Chand Paul International Conference on Emerging Trends in Chemistry](#), Panjab university, Chandigarh, India, February 11-12, **2011**.
- 8) Himanshu Sharma, **Dinesh Kumar** and Asit K. Chakraborti, "Organocatalytic route for Biginelli Condensation," [Prof. Ram Chand Paul International Conference on Emerging Trends in Chemistry](#), Panjab university, Chandigarh, India, February 11-12, **2011**.
- 9) Tushar Satv, **Dinesh Kumar** and Asit K. Chakraborti, "Organocatalytic route for Biginelli Condensation," [Prof. Ram Chand Paul International Conference on Emerging Trends in Chemistry](#), Panjab university, Chandigarh, India, February 11-12, **2011**.
- 10) Damodara N. Kommi, **Dinesh Kumar**, and Asit K. Chakraborti, "[Green protocol for the synthesis of quinoxaline](#)," CSRI-IYC-2011, University of North Bengal (NBU), Siliguri, Kolkata, India, July 22-24, **2011**.
- 11) **Dinesh Kumar**, Damodar K. Chaudary and Asit K. Chakraborti, "Regioselective Synthesis of Benzimidazole derivatives: Application to parallel Synthesis at practical applications of modern tools in organic synthesis and purifications," [Practical Applications of Modern Tools in Organic Synthesis and Purifications](#), IICT, Hyderabad, India, November 21-25, **2010**.
- 12) Prahlad Kumar Meena, **Dinesh Kumar** and Asit K. Chakraborti, "Supported protic acids as recyclable catalysts for synthesis of bis(indolyl)methanes: Scope and limitations," [National Conference on Green & Sustainable Chemistry](#), BITS, Pilani, India, February 19-21, **2010**.
- 13) Sonam Bhatia, **Dinesh Kumar**, and Asit K. Chakraborti, "Organocatalytic route for 1,5-benzodiazepine derivatives," [National Conference on Green & Sustainable Chemistry](#), BITS, Pilani, India, February 19-21, **2010**.
- 14) Kapileshwar Seth, **Dinesh Kumar** and Asit K. Chakraborti, "Tandem process for synthesis of quinoxalines," [National Conference on Green & Sustainable Chemistry](#), BITS, Pilani, India, February 19-21, **2010**.
- 15) Damodar K. Chaudary, **Dinesh Kumar** and Asit K. Chakraborti, "Regioselective synthesis of 1,2 disubstituted benzimidazoles in aqueous medium," [National Conference on Green & Sustainable Chemistry](#), BITS, Pilani, India, February 19-21, **2010**.
- 16) Prahlad Kumar Meena, **Dinesh Kumar**, and Asit K. Chakraborti, "Green synthesis of 8,9,10,12-tetrahydrobenzo[a]xanthen-11-one Derivatives" [14th International Conference](#)

(ISCBC-2010) on “Chemical Biology for Discovery: Perspectives and Challenges, Central Drug Research Institute, Lucknow, India, January 15-18, **2010**.

- 17) Sachin Bindal, **Dinesh Kumar**, Santosh Rudrawar and Asit K. Chakraborti, “Facile and efficient synthesis of functionalised pyridines catalysed by recyclable protic acids on solid support,” [14th International Conference \(ISCBC-2010\) on Chemical Biology for Discovery: Perspectives and Challenges](#), Central Drug Research Institute, Lucknow, India, January 15-18, **2010**.
- 18) Sonam Bhatia, **Dinesh Kumar**, and Asit K. Chakraborti, “Polymer-supported Lewis acid as a convenient and efficient catalyst for synthesis of 1,5-benzodiazepine,” [14th International Conference \(ISCBC-2010\) on “Chemical Biology for Discovery: Perspectives and Challenges](#) Central Drug Research Institute, Lucknow, India, January 15-18, **2010**.
- 19) Naisargee R. Parikh, **Dinesh Kumar**, and Asit K. Chakraborti, “Facile synthesis of 2-aryl/heteroaryl/alkyl benzothiazole in water at room temperature,” [National Conference on Green Chemistry \(NCGT-2008\)](#), Government Polytechnic Samangaon Road, Nashik, India, November 10-12, **2008**.
- 20) Alpesh R. Patel, **Dinesh Kumar**, and Asit K. Chakraborti, “Convenient and highly efficient synthesis of 2,4,5-trisubstituted and 1,2,4,5-tetrasubstituted imidazoles by Three/Four Component reactions (3/4-MCR) catalysed by recyclable protic acid immobilised on silica,” [National Conference on Green Chemistry \(NCGT-2008\)](#), Government Polytechnic Samangaon Road, Nashik, India, November 10-12, **2008**.
- 21) **Dinesh Kumar**, Raj Kumar and Asit K. Chakraborti, “Perchloric acid adsorbed on silica gel ( $\text{HClO}_4\text{-SiO}_2$ ) as an inexpensive, extremely efficient, and reusable dual catalyst system for acetal/ketal formation and their deprotection to aldehydes/ketones,” [9th CRSI National Symposium in Chemistry \(9th NSC-RSC\)](#), Delhi University, Delhi, India, February 1-4, **2007**.