

## Annexure I

### List of paper published in referred journals:

1. “Biosilica as an efficient heterogeneous catalyst for *ipso*-hydroxylation of arylboronic acids.” **Abhijit Mahanta**, Pooja Adhikari, Utpal Bora\* and Ashim Jyoti Thakur\*, *Tetrahedron Letters*, **2015**, 56, 1780-1783.
2. “An improved Suzuki–Miyaura cross-coupling reaction with the aid of *in-situ* generated PdNPs: evidence for enhancing effect with biphasic system.” **Abhijit Mahanta**, Manoj Mandol, Utpal Bora\* and Ashim Jyoti Thakur\*, *Tetrahedron Letters*, **2016**, 57, 3091-3095.
3. “Palladium nanoparticles decorated on reduced graphene oxide: An efficient catalyst for ligand- and copper-free Sonogashira reaction at room temperature.” **Abhijit Mahanta**, Najrul Hussain, Manash. R. Das\*, Ashim J Thakur\* and Utpal Bora\*, *Applied Organometallic Chemistry*, **2016**, e3679.
4. “Methanol aided synthesis of PdNPs decorated on montmorillonite K10 and its implication in Suzuki Miyaura type cross coupling reaction under base free condition” **Abhijit Mahanta**, Prasanta Kumar Raul, Sanjib Saikia, Utpal Bora\* and Ashim Jyoti Thakur\*, *Applied Organometallic Chemistry*, **2017**, 10.1002/aoc.4192.
5. “In water homocoupling of arylboronic acids using nano-rod shaped and reusable copper oxide(II) catalyst at room temperature.” Prasanta Kumar Raul, **Abhijit Mahanta**, Utpal Bora, Ashim Jyoti Thakur\* and Vijay Veer, *Tetrahedron Letters*, **2015**, 56, 7059-7063.
6. “A green synthesis of palladium nanoparticles by *Sapindus mukorossi* seed extract and use in efficient room temperature Suzuki–Miyaura cross-coupling reaction.” Raju Kumar Borah, **Abhijit Mahanta**, Anurag Dutta, Utpal Bora and Ashim Jyoti Thakur\*, *Applied Organometallic Chemistry*, **2017**, e3784.

7. "Biosynthesis of Poly(ethylene glycol)-supported Palladium nanoparticles using Colocasia esculenta leaf extract and their catalytic activity for Suzuki -Miyaura cross-coupling reaction." Raju Kumar Borah, Hirok Jyoti Saikia, **Abhijit Mahanta**, Utpal Bora and Ashim Jyoti Thakur\*, *RSC Advances*, **2015**, 5, 72453-72457.
  
8. "Copper Oxide nanoparticles as a mild and efficient Catalyst for *N*-Arylation of imidazole and aniline with boronic Acids at room temperature." Raju Kumar Borah, Prasanta Kumar Raul, **Abhijit Mahanta**, Andrey Shchukarev, Jyri-Pekka Mikkolac, Ashim Jyoti Thakur\* *Synlett*, **2017**, 28, 1177-1182.

## Annexure II

### List of Seminar/ Workshop attended and paper presented:

1. Attended the 20th National Magnetic Resonance Society (NMRS) Symposium cum Annual Meeting 2014, held at the Tezpur University, Tezpur, Assam, India, 2014, February,
2. Attended National Workshop on Crystallography Education, Gauhati University, Assam, November, 2014,
3. Poster presentation on “A highly active iodine catalyzed *ipso*-nitration of aryl boronic acid” at the national seminar on Emerging Trends in Chemical Sciences-2015 held at Gauhati University, June, 2015
4. Poster presentation on “Pd@K-10 as an efficient heterogeneous catalyst for Suzuki type cross coupling reaction” at the national seminar on Contemporary developments in Chemical Sciences 2015 held at Tezpur University, November, 2015.
5. Poster presentation on “Palladium nanoparticles decorated on reduced graphene oxide: An efficient catalyst for ligand-and copper-free Sonogashira reaction at room temperature” at the national seminar on Chemical Research Society of India 2017 held at Gauhati University, January, 2017.
6. Poster presentation on “Molecular iodine catalyzed *ipso*-nitration of arylboronic acid at room temperature with zirconium oxynitrate: A theoretical and -experimental investigation” at the national seminar on Recent development in chemical sciences 2017 held at Dibrugarh University, March, 2017.