

List of Publication

1. B. G. Bag, **A. C. Barai**, Self-assembly of naturally occurring stigmasterol in liquids yielding a fibrillar network and gel, *RSC Adv.*, **2020**, 10, 4755
2. B. G. Bag, **A. C. Barai**, S. N. Hasan, S. K. Panja, S. Ghorai, S. Patra, Terpenoids, nano-entities and molecular self-assembly, *Pure and Applied Chemistry*, **2019**, 0000.
3. K. Chaudhuri, S. N. Hasan, **A. C. Barai**, S. Das, T. Seal, B. G. Bag, Green synthesis and characterization of gold nanoparticles using *Bursera serrata* fruit extract, *Asian Journal of Pharmacy and Pharmacology*, **2019**; 5:332-343.
4. **A. C. Barai**, K. Paul, A. Dey, S. Manna, S Roy, B. G. Bag, C. Mukhopadhyay Green synthesis of *Nerium oleander*-conjugated gold nanoparticles and study of its in vitro anticancer activity on MCF-7 cell lines and catalytic activity, *Nano Convergence*, **2018**. 5,10.
5. C. Garai, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, B. G. Bag, Green synthesis of Terminalia arjuna-conjugated palladium nanoparticles (TA-PdNPs) and its catalytic applications, *J. Nanostruct. Chem.*, **2018**, 8, 465.
6. K. Chaudhuri, S. N. Hasan, **A. C. Barai**, S. Das, T. Seal, B. G. Bag, Nutraceutical Evaluation of *Rhyncholechum ellipticum*, a potent wild edible plant consumed by the tribal of North-Eastern region in India and Green Synthesis of Gold Nanoparticles using its leaf extract, *Journal of Pharmacognosy and Phytochemistry*, **2018**, 7, 1434-1442.
7. B. G. Bag, S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, C. Garai, S. Santra, Terpenoids in Early 21st Century: From Renewable Functional Nano-entities to Advanced Materials, *Prayog. Ras.*, **2018**, 2, 1-23.
8. K. Chaudhuri, S. N. Hasan, **A. C. Barai**, S. Das, T. Seal, B. G. Bag, Green synthesis of gold nanoparticles using *Wendlandia wallichii*, a potent wild edible

Publication

- plant consumed by the tribal of north-eastern region in India, *The Pharma Innovation Journal*, **2018**, 6, 437-446.
9. B.G. Bag, **A.C. Barai**, K. Wijesekera, P. Kittakoop, First Vesicular Self-Assembly of Crotocebraneic Acid, a Nano-Sized Fourteen Membered Macrocylic Diterpenic Acid, *Chemistry Select*, **2017**, 2, 4969 – 4973.
 10. B. G. Bag, S. Das, S. N. Hasan, **A. C. Barai**, Nanoarchitectures by hierarchical self-assembly of ursolic acid: entrapment and release of fluorophores including anticancer drug doxorubicin, *RSC Adv.*, **2017**, 7, 18136-181343.
 11. B. G. Bag, **A. C. Barai**, S. N. Hasan, S. Das, C. Garai, S. Ghorai, S. K. Panja, Terpenoids as Renewable Nano-Sized Building Blocks, *Prayog. Ras.*, **2017**, 3, 61 -68.
 12. B. G. Bag, **A. C. Barai**, Study of Antioxidant Property of the Tuber Extract of *Habenaria Edgeworthii* (Vrddhi) and its use in the green synthesis of Gold nanoparticles. *Prayog. Ras.* **2017**, 1, 16-20.
 13. Vesicular self-assembly of erucic acid in aqueous binary solvent mixture and study of entrapment property. (manuscript under preparation)

**List of abstract published in the National and International
Conference**

1. B. G. Bag, **A. C. Barai**, S. N. Hasan, S. K. Panja, S. Ghorai, S. Patra, S. Ghosh, S.C. Jana, **GSPFM 2020**, IIT Kharagpur.
2. **A. C. Barai**, S. Ghorai, S. Das, S. N. Hasan, S. K. Panja, C. Garai, S. Santra, B. G. Bag, Vesicular self-assembly of Nano-sized Terpenoids, **SCBFM-2018**, held at IISER Kolkata, West Bengal.(Best Poster award)
3. **A. C. Barai** and B. G. Bag, Vesicular self-assembly of Renewable Nano-sized Terpenoids and its Application, **IISF 2018**, Young scientist conferences, Indira Gandhi Pratisthan, Lucknow
4. **A. C. Barai** and B. G. Bag, Self-assembly of naturally occurring stigmasterol in liquids yielding a fibrillar network and gel, **FCS 2020, 2020**, held at Vidyasagar University.
5. **A. C. Barai** and B. G. Bag, Self-assembly of naturally occurring stigmasterol in liquids yielding a fibrillar network and gel and its application. **Rasayan 4, 2019**, Held at gope palace, Medinipur.
6. **A. C. Barai** and B. G. Bag, Vesicular self-assembly of Renewable Nano-sized Terpenoids and its Application, **FCS 2019, 2019**, held at Vidyasagar University.
7. **A. C. Barai** and B. G. Bag Green synthesis of gold-conjugated *Nerium oleander* Nano particles and study of its in-vitro anticancer activity on MCF-7 cell lines and catalytic activity, **FCS & FPPP 2018**, held at Vidyasagar University, Midnapore.

8. **A. C. Barai** and B. G. Bag Study of Antioxidant Property of the Chyavanprash **FCS & FPPP 2017**, held at Vidyasagar University, Midnapore.
9. **A. C. Barai** and B. G. Bag, Study of Antioxidant Property of the Astavarga plants and its use in the Green Synthesis of Gold nanoparticles, **FCS & FPPP-16**, 2016, held at Vidyasagar University
10. **A. C. Barai** and B. G. Bag, **Rasayan 1**, 2016
11. **A. C. Barai** and B. G. Bag, First vesicular self-assembly of Crotoembraneic acid, a nano-sized fourteen membered macrocyclic diterpenic acid, **Rasayan 2**, 2017
12. **A. C. Barai** and B. G. Bag, Vesicular self-assembly of Renewable Nano-sized Terpenoids and its Application, **Rasayan 3**, 2018
13. B. G. Bag, S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, C. Garai, S. K. Panja, S. Santra, Self-assembly of renewable nano-sized triterpenoids, **8th ICGC 2018**, held at Bangkok, Thailand.
14. B. G. Bag, S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, Natural triterpenoids as renewable functional nano-entities: Hierarchical self-assembly yielding novel materials useful for drug entrapment, metal-nanoparticle hybrids and recyclable catalyst, **PACCON-17** held at Kmutnb, Thailand, 2017.
15. B. G. Bag, S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, Natural Triterpenoids as Renewable Functional Nano-entities: Hierarchical Self-assembly yielding Novel materials useful for Drug entrapment, Metal-nanoparticle Hybrids and Recyclable Catalyst, **SICC-9**, held at Singapore.

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- 16.** B. G. Bag, S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, Natural Triterpenoids as Renewable Functional Nano-entities: Hierarchical Self-assembly yielding Novel materials useful for Drug entrapment, Metal-nanoparticle Hybrids , **RRC-16** held at Ghatal Rabindra Satabarsiki Mahavidyalaya, West Bengal.
- 17.** S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, B. G. Bag, Nanoarchitectures by Hierarchical Self-assembly of Ursolic Acid: Entrapment and Release of Fluorophores including anticancer drug Doxorubicin, NSNM-2017, held at Vidyasagar University, West Bengal.
- 18.** S. Das, S. N. Hasan, **A. C. Barai**, S. Ghorai, S. K. Panja, B. G. Bag , Hierarchical Self-assembly of Renewable Nano sized Triterpenoids Yielding Supramolecular Architectures and Novel Materials, **ICEM-2017**, held at Vidyasagar University, West Bengal.(Best Poster)