

Publications

Papers published/communicated in *peer reviewed* journals

- [1] Chetia, L., Kalita, D. and Ahmed, G. A. Synthesis of Ag nanoparticles using diatom cells for ammonia sensing. *Sensing and Bio-Sensing Research*, 16:55-61, 2017. DOI: 10.1016/j.sbsr.2017.11.004.
- [2] Chetia, L., Kalita, D. and Ahmed, G. A. Enhanced photocatalytic degradation by diatom templated mixed phase titania nanostructure. *Journal of Photochemistry and Photobiology A: Chemistry*, 338:134-145, 2017. DOI:10.1016/j.jphotochem.2017.01.035.
- [3] Chetia, L., Kalita, D. and Ahmed, G. A. Investigating photocatalytic activity of titania coated fresh water diatom frustules by the degradation of polluting dye. *ADBUs Journal of Engineering Technology*, 6(3):006031206(6PP), 2017, ISSN: 2348-7305.

Paper presented in International/National Conference

- [1] Participated and presented a poster in National Conference on Hard and Soft Condensed matter physics organized by department of physics during 2-4th March, 2017, Tezpur, Assam, India.
- [2] Participated and presented orally in International Conference on Advances in Nanotechnology (ICAN) organized by Assam Don Bosco University, Azara campus, Guwahati during 9-13th January, 2017, Guwahati, India.
- [3] Participated and presented a poster in International Conference on Emerging trends in nanomaterials science and technology (ICETNMST-2017) organized by department of science and humanities, National Institute of Technology Nagaland, 4-6th January, 2017.
- [4] Participated and presented orally in 1st Springer International conference on Emerging Trends and Advances in Electrical Engineering and Renewable Energy (ETAEEERE) organized by department of electrical and electronics engineering, Sikkim Manipal Institute of Technology (SMIT), 17-18th Dec, 2016, Sikkim, India.
- [5] Participated and presented a poster in XL Conference of the Optical Society of India, International Conference on Light and Light based Technologies (ICLLT 2016) during 26-28th Nov, 2016 at Tezpur University, Napaam, Tezpur, Assam, India.

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- [6] Participated and presented a poster in Xth biennial national conference of physics academy of northeast (PANE) on the theme “Recent Advances in Physics Research and its Relevance”, organized by Physics Department, St. Anthony’s College, Shillong, on 10th – 12th November, 2016.
- [7] Participated and presented a poster in International Conference on Electronic Devices, Circuits, Applied Electronics and Communication Technology (EDCAECT 2015) Organized by Department of Electronics & Communication Technology Gauhati University, Gauhati, Assam, India and Krishi Sanskriti, New Delhi, India on 8th, 9th and 10th October, 2015, Gauhati University, Gauhati, Assam, India.

List of book Chapter

- [1] Chetia, L., Kalita, D. and Ahmed, G. A. Visible light harvesting titania coated diatom frustules with superior photocatalytic activity In S. SenGupta, A. F. Zobaa, K. S. Sherpa and A. K. Bhoi, editors, *Advances in Smart Grid and Renewable Energy, Series title: Lect. Notes Electrical Eng.*, vol. 435, Ch. 50, pages 515-524. ISBN No. 978-981-10-4285-0, Springer, part of Springer Nature, Singapore, 2017.
- [2] Chetia, L., Kalita, D. and Ahmed, G. A. Solar photocatalytic degradation of polluting dye using titania coated diatom frustule as catalyst in aqueous suspension”, In Dr. Simanta Chutia and Shantu Saikia, editors, *Recent advances in physics research and its relevance*. ISBN No. 978-93-86256-85-0, pages 125-129, Excel India Publishers, New Delhi, 2017.

Conference / Workshop/ School Attended

- [1] Attended SERB School on Optical Metrology sponsored by SERB, Department of Science and Technology, Govt. Of India, held during June 01 to June 21, 2016 at the Department of Physics, Tezpur University, Tezpur, Assam.
- [2] 2-Day Familiarization Workshop on Nanofabrication Technologies, A project of DeitY, MCIT, Govt. of India at IIT Bombay and IISc, held at Tezpur University, Assam during April 25-26, 2015.

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[3] International workshop on HYBRIDPHOTONICS 2015, held from 24-26th February 2015 at Department of Physics, Tezpur University, Tezpur, Assam, India.

Papers published in conference proceedings/communicated to other journal

- [1] Chetia, L., Kalita, D. and Ahmed, G. A. Photoluminescence studies with fresh water centric diatom *Cyclotella* species. *Journal of Basic and Applied Engineering Research (JBAER)*, 2(19):1676-1679, 2015, p-ISSN: 2350-0077, e-ISSN: 2350-0255.
- [2] Chetia, L., Kalita, D., Boruah, M. J., Gogoi, A. and Ahmed, G.A., Characteristic observations in Arsenic functionalized diatoms and study of light scattering properties (*communicated*).