National Institute of Technology Rourkela

Synopsis Seminar

Seminar Title	: Tandem Visible Light Triggered and Heterogeneous Photocatalyst Catalysed Organic Transformation
Speaker	: Sangita Bishi (Rollno : 518cy2020)
Supervisor	: Prof. Debayan Sarkar
Venue	: Seminar Hall (Department of Chemistry)
Date and Time	: 18 Nov 2024 (4 PM)

Abstract : Photochemical techniques have grown to be effective approaches in contemporary synthetic organic chemistry that have an impact on the life science sector, mostly due to the ease of access to laboratory equipment.[1] In addition chemical recycling of polymers [2,3] or degradation of waste products into environmentally harmless products,[4,5] as well as solar fuel generation,[6,7] greatly benefitted from these developments. The latter ultimately aims at using sunlight rather than artificial light setups. The outstanding electronic characterized heterogeneous metal-free 2D semiconductor g-C_3N_4 and the metal doped g-C_3N_4 are an emerging alternative redox catalyst to conventional thermochemical catalyst, where it functions as a high-performance photocatalyst towards a sustainable synthesis of high-value organic molecules. Herein, we reported the excellent activity of g-C_3N_4 and Cu@g-C_3N_4 toward the selective C-C, C-O, C-N, and C-halide bond formation.

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