

Seminar Title	: Heterogeneous Photocatalyst Based Visible Light Bond Generations
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Venue	: Seminar Hall (Department of Chemistry), Hybrid Mode
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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. <sup>1</sup> In addition chemical recycling of polymers <sup>2,3</sup> or degradation of waste products into environmentally harmless products, <sup>4,5</sup> as well as solar fuel generation, <sup>6,7</sup> 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 <sub>3</sub> N <sub>4</sub> and the metal doped g-C <sub>3</sub> N <sub>4</sub> 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 <sub>3</sub> N <sub>4</sub> and Cu@g-C <sub>3</sub> N <sub>4</sub> toward the selective C-C, C-O, C-N, and C-halide bond formation.

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