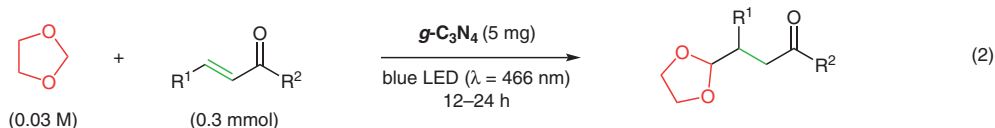
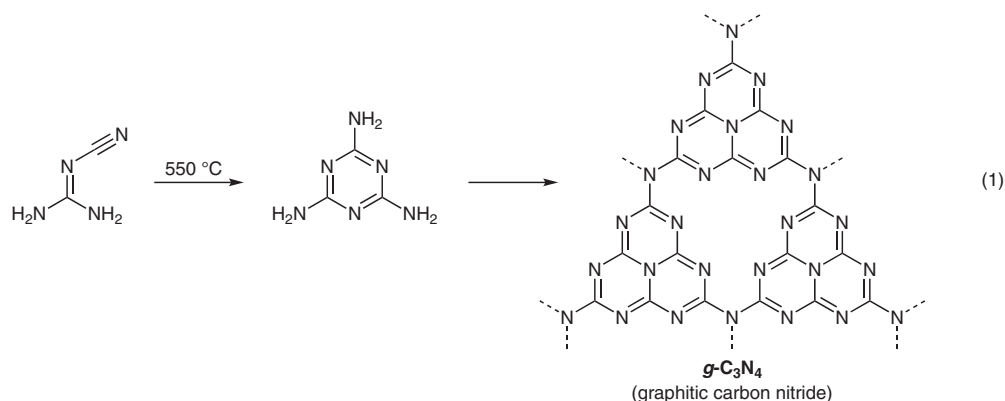
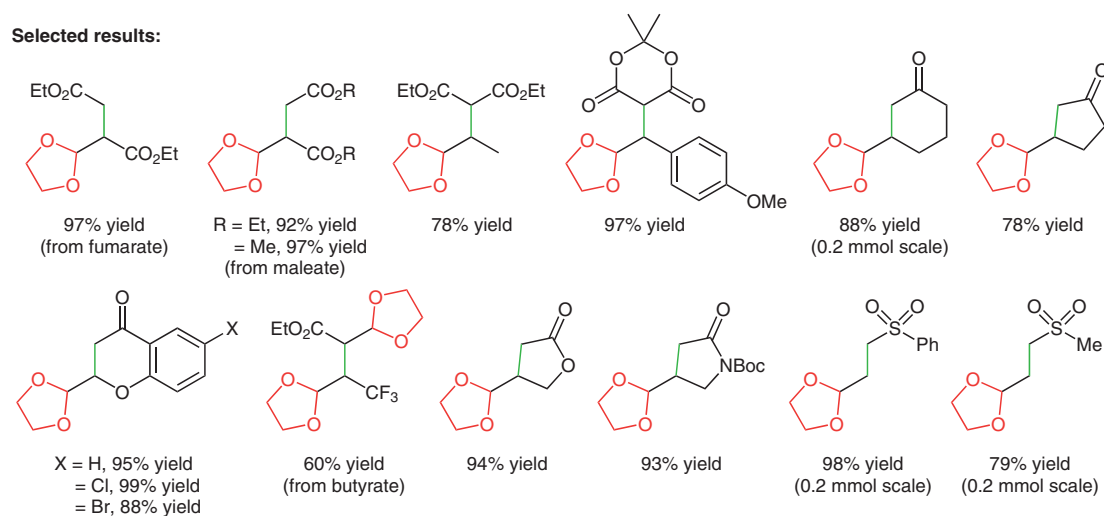


# Photochemical Giese Reaction of Dioxolane and Vinyl Ketones on Graphitic Carbon Nitride



## Selected results:



**Significance:** Graphitic carbon nitride ( $\text{g-C}_3\text{N}_4$ ), prepared by thermal condensation of dicyandiamide (eq. 1), catalyzed the Giese reaction of 1,3-dioxolane with vinyl ketones under blue LED irradiation ( $\lambda = 466\text{ nm}$ ) for 12–24 hours to give the corresponding products in  $\leq 99\%$  yield (eq. 2).

**Comment:** In the Giese reaction of 1,3-dioxolane with diethyl fumarate,  $\text{g-C}_3\text{N}_4$  was reused four times without a significant loss of its catalytic activity. SEM, FT-IR, XRD, UV/vis, and elemental (C, N, and H) analyses of the used catalyst revealed that its morphology remained intact during the reaction.