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Abstract	:	In this study, biochar-based graphitic carbon nitride (BC/g-C₃N₄) photocatalyst derived from sugarcane bagasse, were prepared via a facile thermal polycondensation method. The role of precursors was investigated by synthesizing the photocatalyst using different types of precursors (i.e., urea and melamine). The prepared photocatalyst were characterized by FTIR, N₂ sorption isotherm and XRD. Investigations on the effect of pH, initial concentration of pollutants and catalyst dosage to the performance of the photocatalyst was presented. Experimental results revealed that BC/g-C₃N₄ prepared from urea demonstrated the highest percentage degradation of anthracene (88%) as compared to BC/g-C₃N₄ prepared from melamine (72%) under visible light irradiation. Experimental results also suggested that several factors during photocatalysis influenced the overall performance of the photocatalyst. It can be inferred that increasing the photocatalyst dosage beyond the optimum value (i.e., 1.0 g/L) could severely affect the photocatalytic degradation efficiency. It was also found that the degradation efficiency was decreased with an increase of initial concentration of anthracene more than 2 ppm. Moreover, it can be concluded that degradation of anthracene by BC/g-C₃N₄ was favorable at pH 3. It is important to note that the new and green photocatalyst prepared from biomass waste holds great potential in green and sustainable wastewater remediation.