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Azine-based covalent organic frameworks as metal-free visible light photocatalysts for CO_2 reduction with H_2O

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Graphical Abstract

Highlights

- Azine-based COFs catalyze CO_2 reduction with H_2O upon visible-light irradiation
- Photocatalytic conversion of CO_2 into methanol without any sacrificial agents
- Azine-based COFs are more active than the metal-free semiconductor g-C_3N_4
- Development on COFs as photocatalysts for CO_2 conversion into valuable chemicals