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**Azine-based covalent organic frameworks as metal-free visible
light photocatalysts for CO₂ reduction with H₂O**

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Graphical Abstract

Highlights

- Azine-based COFs catalyze CO₂ reduction with H₂O upon visible-light irradiation
- Photocatalytic conversion of CO₂ into methanol without any sacrificial agents
- Azine-based COFs are more active than the metal-free semiconductor g-C₃N₄
- Development on COFs as photocatalysts for CO₂ conversion into valuable chemicals

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