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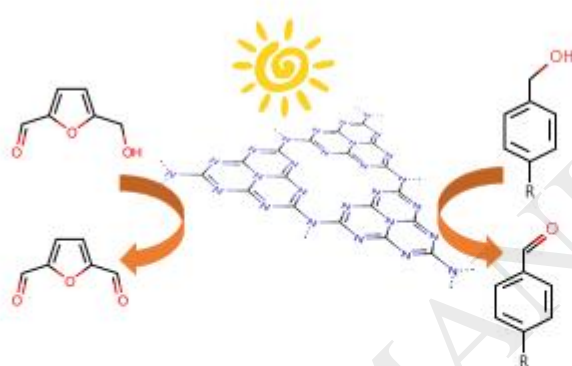
Polymeric carbon nitride (C₃N₄) as heterogeneous photocatalyst for selective oxidation of alcohols to aldehydes

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Graphical abstract



HIGHLIGHTS

- -Polymeric carbon nitride (C₃N₄) is a semiconductor promising as green photocatalyst
- -C₃N₄ forms superoxide radicals, O₂^{•-}, with less oxidant ability than [•]OH
- -It is used as photocatalyst in selective oxidation of alcohols to aldehydes
 - This paper reviews the state of art of C₃N₄ for selective alcohol oxidation

Abstract

Polymeric carbon nitride (C₃N₄) is a semiconductor material which is a very promising green photocatalyst with good physico-chemical properties and stability. It is a metal-free carbon based non-toxic material which can be easily obtained from earth-abundant components. The robustness and versatility of C₃N₄ as a photo-redox catalyst allows its use for selective oxidations by

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