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Carbon doped hexagonal BN as a highly efficient metal-free base catalyst for Knoevenagel condensation reaction

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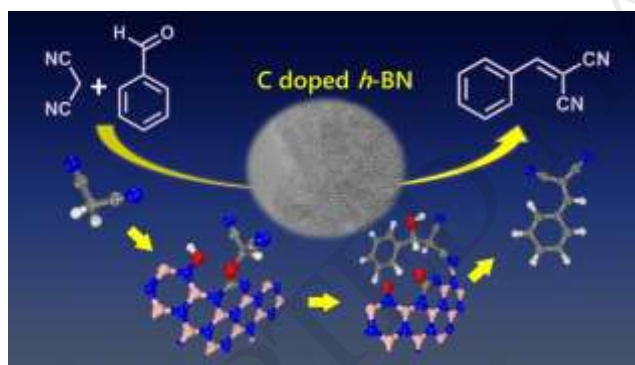
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Graphical abstract



Highlights

- Carbon doped boron nitride (BCN) could serve as an efficient solid base catalyst
- It shows a high activity for Knoevenagel condensation of benzaldehyde with malononitrile
- The reaction follows a dissociative adsorption mechanism on oxygen terminated BCN edges
- C atoms doping plays a vital role in promoting the desorption of the intermediates

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