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Title: Photodeposition of Pd Nanoparticles on $ZnIn_2S_4$ for Efficient Alkylation of Amines and Ketones' α -H with Alcohols under Visible Light

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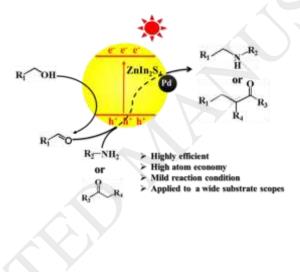
Photodeposition of Pd Nanoparticles on ZnIn₂S₄ for Efficient Alkylation of Amines and Ketones' α-H with Alcohols under Visible Light

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Graphical Abstract



Highlights

- Small sized Pd nanoparticles were deposited on the surface of $ZnIn_2S_4$ via photo-reduction process.
- Pd-ZnIn₂S₄ showed superior performance in light-induced alkylation of amines and ketones' α -H with alcohols.
- A successful coupling of photocatalytic dehydrogenation of alcohols over ZnIn₂S₄ with Pd-based hydrogenation
- Pd-ZnIn₂S₄ exhibited high stability and reusability during the catalytic reaction.

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