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Metal-free photochemical hydrogen storage in aromatic compounds

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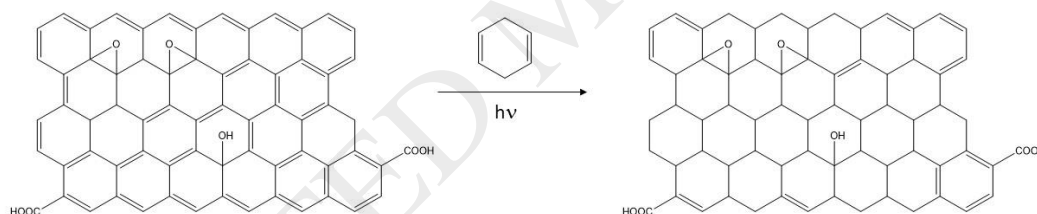
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Graphical abstract



Highlights

- Based on Baird's rule, a new method for hydrogenating aromatic molecules by metal-free photochemical reaction is proposed.
- This new reaction is feasible as a hydrogen storage procedure at low cost.
- Hydrogen technology has become an important alternative for societies and pursued by chemists.
- Hydrogenation of aromatic compounds are challenging chemical reactions due to the endergonic nature of the process.
- A new reaction where the aromaticity itself is the driving force of hydrogen transfer is shown.

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