Category

Polymer-Supported Synthesis

Key words

magnetic nanoparticles

cyclic 1,3-diones

activated acetonitriles

isatins

spirooxindoles

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Copper Ferrite Nanoparticles: An Efficient and Reusable Nanocatalyst for a Green One-Pot, Three-Component Synthesis of Spirooxindoles in Water

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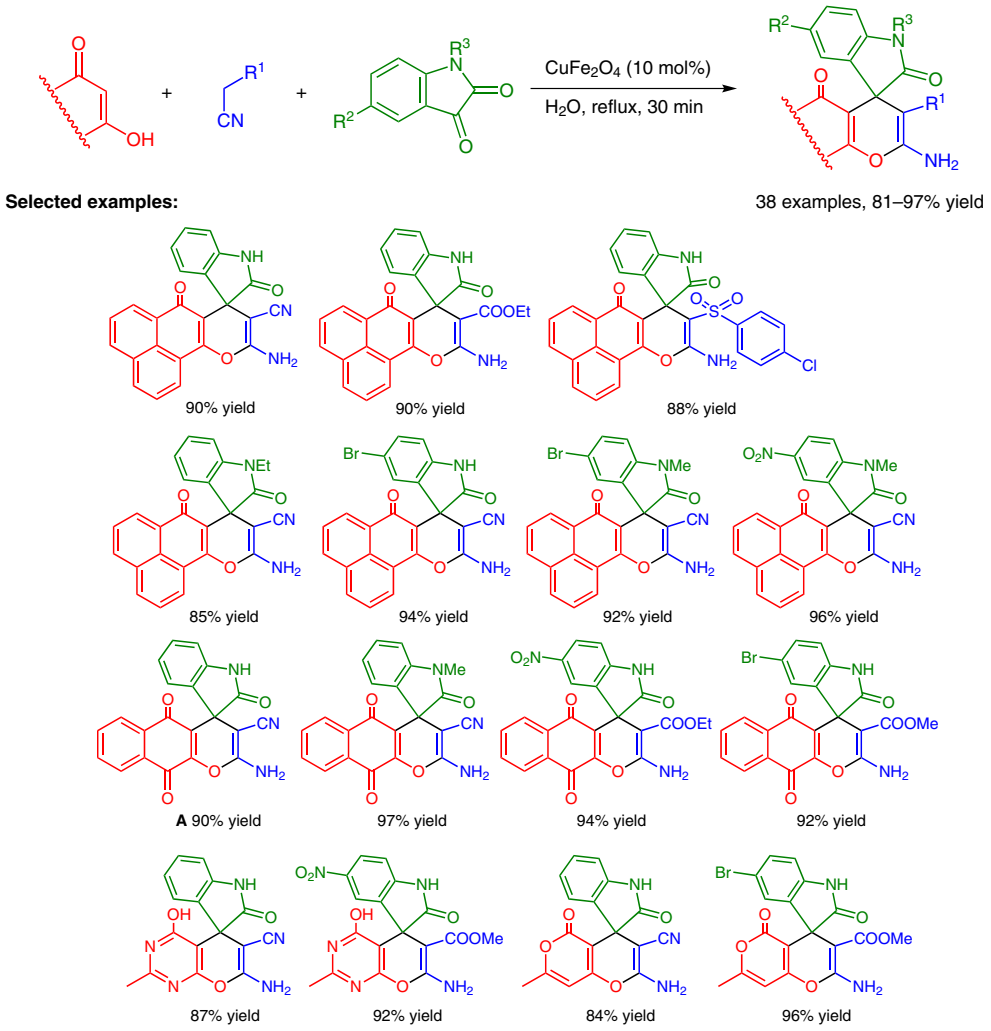
Synthesis of Spirooxindoles Using $CuFe_2O_4$ Nanoparticles



Significance: $CuFe_2O_4$ nanoparticles catalyzed the three-component coupling of cyclohexane-1,3-diones, activated acetonitriles and isatins to give the corresponding spirooxindoles (38 examples, 81–97% yield).

Comment: In the synthesis of product **A**, the catalyst was recovered magnetically and reused four times (1st reuse: 90% yield, 2nd reuse: 89% yield, 3rd reuse: 88% yield, 4th reuse: 80% yield).

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