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Efficient Asymmetric $\alpha$-Oxyamination of Aldehydes by Resin-Supported Peptide Catalyst in Aqueous Media

**Supported Peptide for Asymmetric $\alpha$-Oxyamination of Aldehydes**

Significance: A polystyrene-poly(ethylene glycol) resin supported peptide catalyst bearing terminal five-residue Pro-D-Pro-Alb-Trp-Trp combined with polyoleucine was prepared. The polymeric peptide was successfully applied to the asymmetric $\alpha$-oxyamination of aldehydes with TEMPO in the presence of a catalytic amount of FeCl$_2$ and NaNO$_2$ to give the corresponding products under aqueous aerobic conditions with up to 87% yield and 93% ee (5 examples).


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