

Practical Asymmetric Electrophilic Amination of Silyl Enol Ether Derivatives via the Nitrosocarbonyl Ene Reaction

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Presented is an account of the first example of a general asymmetric nitrosocarbonyl ene reaction with silyl enol ether derivatives. The procedure is operationally simple and utilizes an easily accessible chiral nitrosocarbonyl precursor (EleNO_r), catalytic copper, and air as a benign oxidant. The transformation is both high yielding and highly diastereoselective for a variety of silyl enol ether derivatives including aromatic heterocyclic ketones. A range of non-exclusive post-functionalizations showcases the variety and scope of this method's potential synthetic applications.

