

MANGANESE CATALYZED ALKYLATION OF AMIDES AND ESTERS

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The first example of manganese-catalyzed Calkylation of the carboxylic acid derivatives is reported. The bench-stable homogeneous manganese complex enables the transformation of the renewable alcohol and carboxylic acid derivative feedstock to higher value esters and amides. The reaction operates via hydrogen autotransfer and ideally produces water as the only side product. Importantly, aliphatic-, benzylic-, and heterocyclic-containing alcohols can be used as alkylating reagents, eliminating the need for mutagenic alkyl halides.