

Nucleophilic Substitution Reactions of 1-Nitroxy-3-(nitroxymethyl)adamantanes

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Abstract—A series of new polyfunctional cage compounds were synthesized by reactions of 1-nitroxy-3-(nitroxymethyl)adamantanes with nucleophiles in 100% sulfuric acid. The replacement of nitroxy group at the bridgehead position was accompanied by hydrolysis of the nitroxymethyl fragment.

Keywords: cage nitrates, sulfuric acid, Koch–Haaf reaction, hydrolysis, Ritter reaction, functionalization

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