

Reaction of acyl isocyanates with disubstituted amides and an investigation of hindered internal rotation in amidine molecules

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Abstract

1. Trifluoroacetyl isocyanate reacts with dimethylformamide to form a six-membered cycloadduct. Trichloroacetyl isocyanate reacts similarly with dimethylacetamide. 2. Trifluoroacetyl isocyanate reacts with dimethylacetamide to form a substituted 1, 3, 5-dioxazi-4-one, and with dimethylbenzamide to form 1-trifluoroacetyl-2-phenyl-3, 3-dimethylamidine. 3. Using PMR spectroscopy, hindered internal rotation about the $C-N$ bond in amidine molecules has been studied and its kinetic parameters determined. © 1977 Plenum Publishing Corporation.

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