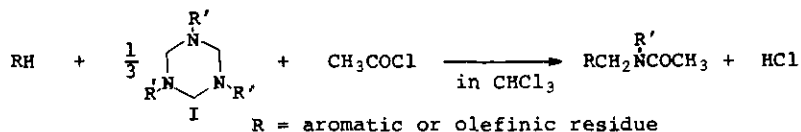


NEW N-ALKYLAMIDOMETHYLATION OF ELECTRON-RICH CARBON IN
THE HEXAHYDRO-1,3,5-TRIAZINE-ACETYL CHLORIDE SYSTEM

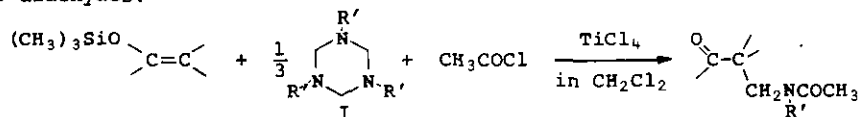
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1,3,5-Trialkylhexahydro-1,3,5-triazine (I), which can be easily prepared from primary amine and formaldehyde, is a versatile, synthetic tool, capable of reacting in the same way as N-alkylmethyleimine. In fact, its reaction with acetyl chloride can afford N-chloromethylamide.

Using 1,3,5-trialkylhexahydro-1,3,5-triazine-acetyl chloride system, a new N-alkylamidomethylation at electron-rich carbons has been developed. This reaction worked well for not only aromatics such as phenols, alkoxybenzenes and aromatic amines, but also olefines such as styrene and vinyl ethers.



Introduction of N-alkylamidomethyl unit at α to carbonyl was also realized. Silyl enol ethers of various carbonyl compounds reacted easily with I in the presence of acetyl chloride and titanium tetrachloride to afford α -amidomethylated ketones or aldehydes.



The new reaction is certainly useful for introduction of N-alkylamidomethyl unit at such electron-rich carbons, which is not otherwise easily accessible.