

Double Aminomethylation – Elimination Reaction of 4*H*-Imidazole 3-Oxides

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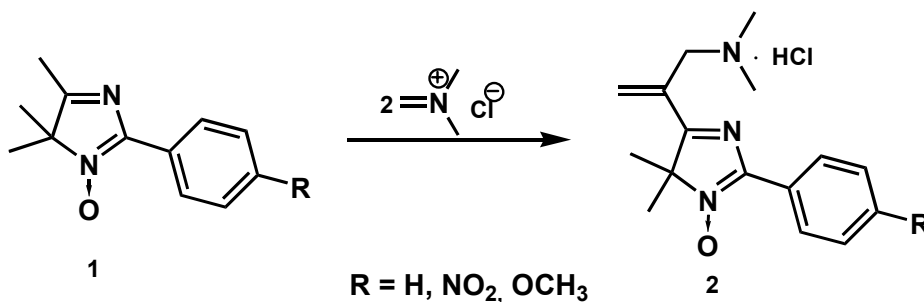
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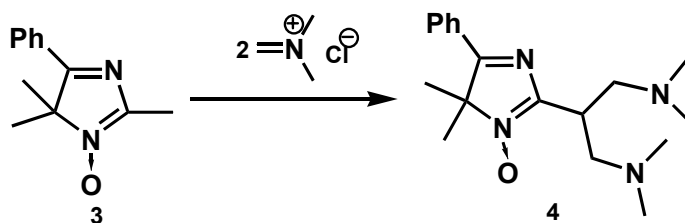
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4*H*-Imidazole 3-oxides are known to be of interest due to their reactivity towards nucleophiles and dipolarophiles. We supposed that reactivity of methyl groups of 2- or 5-methylated 4*H*-imidazole 3-oxides should be close to that in methylketones, and the compounds are likely to react with electrophilic aminomethylating agents.

We found that the reaction of 2-aryl-4,4,5-trimethyl-4*H*-imidazole 3-oxides (**1**) with two equivalent of Eschenmoser's salt (dimethylmethyleneammonium chloride) leads to corresponding unsaturated aminomethylated compounds (**2**).



2,4,4-Trimethyl-5-phenyl-4*H*-imidazole 3-oxide (**3**) gives double aminomethylated derivative (**4**) under the same conditions.



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