C-N Bond Formation using Persistent Nitrogen-Centered Radicals

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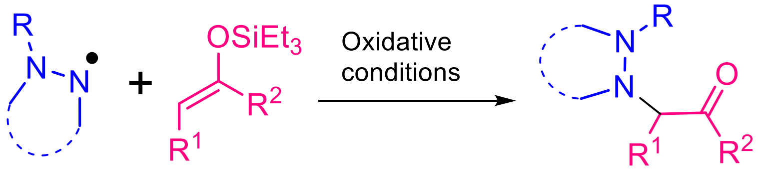
The formation of C-N bonds using radical reactions plays a prominent role in modern organic chemistry. There are diverse methods to generate transient nitrogen radicals *in situ* by reductive or oxidative conditions, proton-coupled electron transfer reactions or homolytic cleavage. [1] The resulting highly reactive N-radical will undergo cascade processes leading to the functionalization of Csp2, Csp1 [2] or Csp3 [3] carbon atoms by the formation of a new C-N bond.

We show here the other side of the picture, where a transient α-carbonyl radical generated *in situ* encounters a persistent N-centered radical, to afford α-functionalized ketones (Scheme). Late stage functionalizations will be demonstrated.



Selected reviews:

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