## Development of New Organic Reactions by Exploiting Sulfur-Nitrogen Bond

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The structures of target molecules in organic synthesis are becoming more complicated, and better functional compatibility and higher selectivity are required for the efficient synthesis of complex molecules. However, these requirements are not always fulfilled with conventional organic reactions, especially with oxidation reactions. Therefore, exploration of a new method for oxidation is worth challenging.

Based on the idea that a new reactivity would be created in sulfur-based oxidation by utilizing a sufur-nitrogen bond, we found *N-tert*-butylbenzenesulfinimidoyl chloride (1) as a unique oxidizing agent in organic synthesis. For example, various types of alcohols were oxidized smoothly to the corresponding carbonyl compounds by using a stoichiometric amount of 1 in the presence of an appropriate base. Oxidation of various alcohols with *N*-chlorosuccinimide (NCS) was carried out by using a catalytic amount of *N-t*-butylbenzenesulfenamide (2) in the presence of potassium carbonate.  $\alpha,\beta$ -Unsaturated ketones were synthesized by one-pot procedure from various ketones in good to excellent yields on treatment of their lithium enolates with 1 at -78 °C.

*N*-Carbobenzyloxy (Cbz) ketimines, which are known to isomerize easily to the corresponding enecarbamates, were prepared conveniently from *N*-Cbz amines by oxidation with **1**. Efficient carbon-carbon bond formation at the  $\alpha$ -position of nitrogen was established by one-pot oxidative Mannich reaction of *N*-Cbz amines with 1,3-dicarbonyl compounds using **1**.