

論文 / 著書情報
Article / Book Information

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Title(English)	Synthesis of Nitrile <i>N</i>-Oxide-Based Orthogonal Agents toward Catalyst-Free Functionalization
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Thesis Outline

The thesis entitled “Synthesis of Nitrile *N*-Oxide-Based Orthogonal Agents toward Catalyst-Free Functionalization” consists of five chapters to develop nitrile *N*-oxide-based heterobifunctional agents for catalyst-free functionalization. These nitrile *N*-oxide-based heterobifunctional orthogonal agents acted as molecular glues to bound substrates covalently for realizing the construction of sophisticated functional polymers and surfaces via catalyst-free protocol. This study of nitrile *N*-oxide based orthogonal agents will be a cornerstone and an alternative choice to contribute to the improvements of the easy and environmentally friendly versatile methods for transferring materials into valuable and intriguing ones. The author summarizes the synthesis of new orthogonal agents containing kinetically stabilized nitrile *N*-oxide and functional reactive moieties, including thermo-triggered masked ketene (**1**), photolabile *o*-nitrobenzyl ether (**2**) and pentafluorophenyl active ester (**3**).