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| Nota di contenuto | Templated Organic Synthesis; Contents; 1 Templates in Organic Synthesis: Definitions and Roles; 1.1 Introduction - Early Templates; 1.2 The Definition of a Molecular Template; 1.3 Roles of Templates; 1.3.1 Thermodynamic and Kinetic Templates; 1.3.2 Covalent and Non-covalent Template-Substrate Interactions; 1.3.3 Topology of Reaction; 1.3.3.1 Cyclization templates; 1.3.3.2 Linear templates; 1.3.3.3 Interweaving templates; 1.3.4 Scavenger Templates; 1.3.5 Negative Templates; 1.4 Measuring Template Effects; 1.4.1 Qualitative Detection of Template Effects<br>1.4.2 Quantification of Kinetic Template Effects in Terms of Effective Molarity, Substrate Affinity, and Maximum Rate Enhancement1.4.2.1 Linear templates; 1.4.2.2 Quantitative analysis of template effects in tethered reactions; 1.4.2.3 Cyclization templates; 1.5 Conclusion; Appendix 1a: Equations for Figure 1-5; Appendix 1b: Equations for Figure 1-10; References; 2 Templated Synthesis of Polymers - Molecularly Imprinted Materials for Recognition and Catalysis; 2.1 Introduction; 2.2 Preparation of Optically Active Linear Vinyl Polymers |

Sommario/riassunto

Template-controlled reactions allow the synthesis of complex molecules which would hardly be achievable through classical methods. This handbook offers authoratative information on how noncovalent and covalent templates can be effectively applied to control reaction rates as well as regio- and stereoselectivity. From the concepts of template control such as molecular imprinting, self-replication, and reversible tether-directed remote functionalization, the reader is led to template-based ring-closing reactions, oligomerizations, and multiple functionalizations and their application in the synt