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Nota di contenuto	Dynamic Combinatorial Chemistry; Contents; List of Contributors; 1: History and Principles of Dynamic Combinatorial Chemistry; 1.1 Introduction; 1.2 History; 1.2.1 Thermodynamically Controlled Templated Synthesis; 1.2.2 Early DCLs; 1.3 Exercising Control over a DCL to Influence Species Distribution; 1.3.1 Selection through Molecular Recognition of an External Template; 1.3.2 Selection through Self-Templating; 1.3.3 Selection Directed by External Physical Stimuli; 1.3.4 Selection Through a Stabilizing Phase Change; 1.4 Designing a Dynamic Combinatorial System; 1.4.1 Building Block Design 1.4.2 Exchange Reactions1.4.3 Exchange Reactions Currently in Use; 1.4.3.1 Reversible Benzylic Nucleophilic Substitution; 1.4.3.2 Nitro Exchange; 1.4.3.3 Reversible Nitroaldol Reaction; 1.4.3.4 Reversible Resorcinol and Alkanedial Condensation; 1.4.3.5 Reversible Boroxine Formation; 1.4.3.6 Phosphazide Exchange; 1.4.3.7 Transboroxoaromatic Esterification; 1.4.3.8 Future Reactions; 1.5 Conclusions; References; 2: The Practice of Dynamic Combinatorial Libraries: Analytical Chemistry, Experimental Design, and Data Analysis;

2.1 Introduction; 2.2 Analytical Methods; 2.2.1 MS Analysis  
2.2.2 LC-MS Analysis 2.2.3 Analysis by NMR; 2.2.4 Resin-Bound DCC;  
2.3 Experimental Design; 2.3.1 Importance of Template Concentration;  
2.3.2 Library Size; 2.4 Data Analysis; 2.4.1 Quantifying Equilibrium  
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and TSAs; 4.3.2.1 TSA Approach  
4.3.2.2 Selection of Catalyst Based on Intermediate Stability

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Sommario/riassunto

This long-awaited first book on this exciting new field in organic and supramolecular chemistry explains the fundamentals as well as possible applications of DCC. Authored by the "Who's Who" of DCC it spans the whole range of topics: catalysts, sensors, polymers, ligands, receptors, concluding with a look at future developments and perspectives. All set to become the standard text in the field, this one-stop reference contains everything organic, catalytic, polymer, physical and biochemists need to know.

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