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Altri autori (Persone)	JungGunther
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Nota di contenuto	Combinatorial Chemistry; Contents; 1. Combinatorial Chemistry; 1.1 Introduction; 1.2 Principles of Combinatorial Chemistry; 1.3 Methods and Techniques of Combinatorial Synthesis; 1.3.1 Synthetic Strategies Towards Combinatorial Libraries; 1.3.1.1 Split-Pool Synthesis Towards Combinatorial Libraries; 1.3.1.2 Parallel Synthesis Towards Combinatorial Libraries; 1.3.1.3 Reagent Mixture Synthesis Towards Combinatorial Libraries; 1.3.2 Synthetic Methodology for Organic Library Construction; 1.3.2.1 Solid-Phase Organic Synthesis; 1.3.2.2 Synthesis in Solution and Liquid-Phase Synthesis 1.4 Characterization of Combinatorial Libraries1.4.1 Analytical Characterization; 1.4.1.1 Analytical Characterization of Compound Mixtures; 1.4.1.2 Analytical Characterization of Single Substances; 1.4.2 Hit Identification in Combinatorial Libraries by High-Throughput Screening; 1.4.2.1 Strategies for Libraries of Compound Mixtures; 1.4.2.2 Strategies for Libraries of Separate Single Compounds; 1.5 Automation and Data Processing; 1.5.1 Synthesis Automation and Data Processing; 1.5.2 Automated Purification; 1.6 Library Design and Diversity Assessment

1.6.1 Diversity Assessment for Selection of Building Blocks or Compounds1.6.2 Iterative Optimization Methods; 1.7 Economic Aspects; 1.8 Acknowledgements; 1.9 References; 2. Survey of Solid-Phase Organic Reactions; 2.1 Introduction; 2.2 Observed Trends; 2.2.1 The Synthetic Repertoire; 2.2.1.1 Robust, Reliable Solid-Phase Reactions; 2.2.1.2 Emerging Solid-Phase Reactions; 2.2.2 Linkers and Cleavage Step; 2.2.3 Reaction-Monitoring; 2.2.4 Highlights; 2.3 Conclusions; 2.4 Reaction Tables; 2.4.1 Substitution Nucleophilic and Electrophilic Type of Reaction: Amide Bond Formation and Related Reactions
2.4.1.1 Sulphonamide2.4.1.2 (Thio)urea; 2.4.1.3 Carbonate; 2.4.1.4 Urethane; 2.4.1.5 Guanidine; 2.4.1.6 Imide; 2.4.1.7 Amide; 2.4.1.8 Lactam; 2.4.2 Type of Reaction: Aromatic Substitution; Electrophilic Carbon-Carbon Bond Formation; 2.4.2.1 Suzuki; 2.4.2.2. Stille; 2.4.2.3 Heck; 2.4.2.4 Other; 2.4.3 Type of Reaction: Aromatic Substitution; Nucleophilic (N-Arylation); 2.4.4 Type of Reaction: Cleavage; 2.4.4.1 Cyclative Cleavage; 2.4.4.2 Functional Group: None (traceless); 2.4.4.3 Functional Group: Halogens; 2.4.4.4 Functional Group: Alkenes; 2.4.4.5 Functional Group: Alcohols, Phenols
2.4.4.6 Functional Group: Primary Amine2.4.4.7 Functional Group: sec-Amine; 2.4.4.8 Functional Group: tert-Amine; 2.4.4.9 Functional Group: Aldehyde/Ketone; 2.4.4.10 Functional Group: Hydroxamic Acid; 2.4.4.11 Functional Group: Amidine; 2.4.4.12 Functional Group: Guanidine; 2.4.4.13 Functional Group: sec Amideltert Amide/Sulfonamide; 2.4.5 Type of Reaction: Condensation; 2.4.6 Type of Reaction: Cycloaddition; 2.4.6.1 [2+2] Cycloaddition; 2.4.6.2 [3+2] Cycloaddition; 2.4.6.3 [4+2] Cycloaddition; 2.4.7 Type of Reaction: Grignard and Related Reactions
2.4.8 Type of Reaction: Heterocycle Formation

Sommario/riassunto

The story of success goes on and on - with a new book on combinatorial chemistry, edited by G?nther Jung!Combinatorial chemistry is a proven time- and resource-saving synthetic method of outstanding importance for industrial processes. Compound libraries help to save time and money, especially in the search for new drugs, and therefore play a pivotal role in solving the problem of the worldwide increasing demand for new and more active drugs. Not only substances, which are of interest for pharmaceutical chemistry, but also materials, catalysts, and biomolecules such as DNA or oligosacc