Title (en)

USE OF COMBINATORIAL CHEMISTRY TO OPTIMIZE MULTI-STEP SYNTHESIS

Title (de)

VERWENDUNG DER KOMBINATORISCHEN CHEMIE ZUR OPTIMIERUNG DER MEHRSCHRITT-SYNTHESE

Title (fr)

UTILISATION DE LA CHIMIE COMBINATOIRE POUR OPTIMISER UNE SYNTHESE MULTIPHASE

Publication

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Application

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Abstract (en)

[origin: WO0207870A2] Methods for discovering optimum catalysts and/or reaction conditions for performing multi-step reactions, in particular multi-step catalytic reactions, are disclosed. A combinatorial approach is used to identify optimum catalysts and/or reaction conditions for performing the reactions. The reactions are performed in the voids of a suitable reactor capable of handling conditions of elevated temperature and pressure, and also that can handle a plurality of simultaneous or substantially simultaneous reactions. The methods can advantageously be used to generate a database of combinations of catalyst systems and/or reaction conditions that provide various product streams, such that as market conditions vary and/or product requirements change, conditions suitable for forming desired products can be identified with little or no downtime. The catalysts can be evaluate using varied reaction conditions, which can provide a) a combinatorial library of product streams and a database including the combination of catalysts and reaction conditions to provide each product stream and/or b) the optimum combination of catalysts and reaction conditions for obtaining a desired product stream.

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