

Title (en)
METHOD AND APPARATUS FOR SCREENING CATALYST LIBRARIES

Title (de)
VERFAHREN UND VORRICHTUNG ZUM SCREENING VON KATALYSATORBIBLIOTHEKEN

Title (fr)
PROCEDE ET DISPOSITIF PERMETTANT D'EXPLORER DES BIBLIOTHEQUES DE CATALYSEURS

Publication
EP 1129348 A1 20010905 (EN)

Application
EP 99954228 A 19991111

Priority
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• US 19184998 A 19981112

Abstract (en)
[origin: WO0029844A1] Rapid screening for activities and selectivities of catalyst libraries having addressable test sites is achieved by contacting potential catalysts at the test sites with reactant streams forming product plumes at the addressable test sites. The product plumes are screened by translating a sample probe and/or the library to a position that one addressable site is in proximity to the sampling probe sample orifice and passing a portion of the reaction products through the sampling orifice forming a free jet expanded volume in at least one vacuum stage and passing a portion of the cooled and reduced pressure jet stream through an inlet orifice of a mass spectrometer for analysis. The mass spectrometric analysis may be combined with resonance enhanced multiphoton ionization methods of detection for very rapid library evaluation. Suitable reactors, microreactors, and product transfer sample microprobes for product transfer to a mass spectrometer are disclosed.

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