

Title (en)

MASS SPECTROMETRIC SCREENING OF CATALYSTS

Title (de)

SCREENING VON KATALISATOREN DURCH MASSENSPEKTROMETRIE

Title (fr)

SELECTION DE CATALYSEURS PAR SPECTROMETRIE DE MASSE

Publication

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Application

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Abstract (en)

[origin: WO0043771A1] Screening methods to identify catalysts or to identify improved catalysts using mass spectrometric analysis of products of catalysis, particularly catalyst-bound intermediate products in the catalytic cycle. The methods are applicable, in particular, to screening of organometallic compounds for catalytic function. Moreover, the methods are applicable, in particular, to screening for catalysts for polymerization reactions. More specifically, the methods employ a two stage (or two step) mass spectrometric detection method in which ions formed in a first stage ionization and which are linked to catalyst performance are selected and the catalyst associated with the selected ion is identified in a second stage employing tandem mass spectrometry. In specific embodiments, the screening methods of this invention avoid explicit encoding because the identity of the catalyst is implicitly contained in the product molecular mass (typically an intermediate product), since the catalyst (or a portion thereof) remains attached to the product.

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