

Title (en)
Process for the preparation of polyamines of the diphenyl methane series.

Title (de)
Verfahren zur Herstellung von Polyaminen der Diphenylmethanreihe.

Title (fr)
Procédé pour la préparation de polyamines de la série des diphénylméthanés.

Publication
EP 0000778 A1 19790221 (DE)

Application
EP 78100591 A 19780804

Priority
DE 2736862 A 19770816

Abstract (en)
1. A process for the production of polyamines of the diphenyl methane series having a high content of 4,4'-isomers and a low content of 2,2'- and 2,4'-isomers by reacting primary or secondary aromatic amines with formaldehyde in the presence of ion exchangers as solid catalysts, which ion exchangers contain sulphonic acid groups, are based on styrene-divinyl benzene copolymers and are present in heterogeneous phase, optionally by way of the intermediate stage of N-substituted precondensates produced in the absence of acid catalysts, characterised in that a) the catalysts used are water-saturated gel-form ion exchangers containing sulphonic acid groups based on styrene-divinyl benzene copolymers, which are cross-linked with 2%, by weight, based on copolymer, of divinyl benzene, or water-saturated macroporous ion exchangers containing sulphonic acid groups based on styrene-divinyl benzene copolymers which are cross-linked with 18%, by weight, based on copolymer, of divinyl benzene ; and b) the catalytic reaction is carried out within a temperature range from 50-150 degrees C optionally under pressure and without any significant distillation of the condensation water and the water introduced into the system.

Abstract (de)
Verfahren zur Herstellung von Polyaminen der Diphenylmethanreihe mit einem hohen Gehalt an 4,4'-Isomeren durch Umsetzung von primären oder sekundären aromatischen Aminen mit Formaldehyd, wobei als Katalysatoren bestimmte wassergesättigte, Sulfonsäuregruppen aufweisende, gelförmige Ionenaustauscher auf Basis von Styroldivinylbenzol - copolymerisaten eingesetzt werden, und wobei man die Umsetzung bei erhöhter Temperatur unter solchen Druck- und Temperaturbedingungen durchführt, dass ein Abdestillieren des Kondensationswassers und des in das System eingebrachten Wassers weitgehend unterbleibt.

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C07C 87/50; C07C 85/24

IPC 8 full level
C07C 67/00 (2006.01); **C07C 211/50** (2006.01); **C07C 209/00** (2006.01); **C07C 209/78** (2006.01)

IPC 8 main group level
C07C (2006.01)

CPC (source: EP)
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C-Set (source: EP)
C07C 209/78 + C07C 211/50

Citation (search report)
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