

Title (en)
METHOD FOR PRODUCING MONODISPERSE GEL-TYPE ION EXCHANGERS

Title (de)
VERFAHREN ZUR HERSTELLUNG VON MONODISPERSEN GELF RMIGEN IONE NAUSTAUSCHERN

Title (fr)
PROCEDE POUR PRODUIRE DES ECHANGEURS D'IONS MONODISPERSES DE TYPE GEL

Publication
EP 1530596 A1 20050518 (DE)

Application
EP 03793680 A 20030802

Priority
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• EP 0308600 W 20030802

Abstract (en)
[origin: DE10237601A1] Production of monodisperse gel-type ion exchangers with a particle size of 5-500 µm comprises preparing an uncrosslinked monodisperse seed polymer dispersion with a particle size of 0.5-20 µm by radical polymerization of monoethylenically unsaturated monomers in a nonaqueous solvent, adding and polymerizing an activated styrene-containing monomer mixture, and functionalizing the resulting polymer. Production of monodisperse gel-type ion exchangers with a particle size of 5-500 µm comprises: (a) preparing an uncrosslinked monodisperse seed polymer dispersion with a particle size of 0.5-20 µm by radical polymerization of monoethylenically unsaturated monomers in a nonaqueous solvent; (b) adding, allowing it to soak into the seed polymer dispersion and polymerizing it at elevated temperature, this step being performed in one or more stages with addition of 2-50 wt.% of a crosslinker in the last stage; and (c) functionalizing the resulting polymer. An Independent claim is also included for monodisperse gel-type ion exchangers produced as above, where functionalization comprises sulfonation to produce cation exchangers or chloromethylation followed by hydrolysis or amination to produce anion exchangers.

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