

Abstract

5 A process for producing polyamides by reacting at least one lactam and optionally further polyamide-forming monomers with aqueous monomer and oligomer extracts obtained during the extraction with water of the polymer product obtained in the production of polyamides, the water content of the reaction mixture being in the range from 0.5 to 13% by weight comprises conducting the reaction in the presence of metal oxides, beta-zeolites, sheet-silicates or silica gels, which may be
10 doped, as heterogeneous catalysts, the heterogeneous catalysts being used in the form which permits mechanical removal from the reaction mixture and are removed from the reaction mixture in the course of the polymerization or after it has ended.