Abstract

PROCESS FOR PREPARING POLYETHER ALCOHOLS

What is proposed is a process for preparing polyether alcohols by conversion of the following reactants: a) one or more alkylene oxides and optionally carbon dioxide and b) one or more H-functional starter substances, in the presence of a catalyst, to form a liquid reaction mixture, in a reaction unit (1), which is characterized in that the reaction unit (1) has internals (2) which form a multitude of microstructured flow channels which bring about multiple splitting of the liquid reaction mixture into component flow paths and recombination thereof in altered arrangement, the multiple splitting and recombination being repeated several times and the microstructured flow channels having a characteristic dimension which is defined as the greatest possible distance of any particle in the liquid reaction mixture from the wall of a flow channel closest to the particle, in the range from 20 to 10 000 µm, the result being that the flow profile of the liquid reaction mixture approximates to ideal plug flow as a result of the microstructured flow channels.

Figure 1