

Method for changing the predefined mean molecular weight M_n during the continuous production of polytetrahydrofurans or THF copolymers

Abstract

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The present invention provides a process for changing the given mean molecular weight M_n in the continuous preparation of polytetrahydrofuran or tetrahydrofuran copolymers, the mono- or diesters of polytetrahydrofuran or of tetrahydrofuran copolymers by polymerizing tetrahydrofuran in the presence of a telogen and/or of a

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comonomer over an acidic catalyst, wherein

- a) the molar ratio of telogen to tetrahydrofuran or to tetrahydrofuran and comonomer is changed,
- b) then the mean molecular weight of at least one sample is determined,
- 15 c) until the mean molecular weight thus determined differs from the molecular weight to be achieved by the change, the already formed polytetrahydrofuran or the tetrahydrofuran copolymers, the mono- or diesters of polytetrahydrofuran or tetrahydrofuran copolymer is at least partly depolymerized over an acidic catalyst and
- 20 d) the tetrahydrofuran recovered by depolymerization is recycled at least partly into the polymerization.