

ABSTRACT**BORON TRIFLUORIDE CATALYST COMPLEX AND METHOD FOR PRODUCING
HIGHLY REACTIVE ISOBUTENE HOMOPOLYMERS**

The invention relates to a catalyst complex comprising boron trifluoride and a co-catalyst mixture of 10 to 90 wt% of a monovalent primary C₁ to C₂₀ alcohol and 90 to 10 wt% of a monovalent secondary C₃ to C₂₀ alcohol, wherein the molar ratio of boron trifluoride to the sum of all alcohols is 2:1 to 1:10. Said catalyst complex is used in the production of highly reactive isobutene homopolymers having a number-average molecular weight of 300 to 50,000, wherein a C₄ hydrocarbon mixture containing at least 20 wt% of isobutene and in total at least 10 wt% of other C₄ olefins is used as a feed material.

(No Figure)