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(54) Title: CATALYST FOR HYDROGEN PEROXIDE ACTIVATION

(57) Abstract: The present invention relates to a catalyst for hydrogen peroxide activation, wherein the catalyst comprises Ti, Si, and O, wherein the catalyst displays a water adsorption (W), a concentration (C) of bridging $\mu^2\eta^2$ -peroxo species per Ti in the H_2O_2 -activated catalyst as determined by quantitative ^{17}O NMR spectroscopy, and a specific activation factor (A) according to formula I, wherein in accordance with formula I, the activation factor is the multiplication product of the water adsorption and the concentration of bridging $\mu^2\eta^2$ -peroxo species per Ti in the H_2O_2 -activated catalyst: $A = W \times C$ (I). The present invention further relates to a method for the preparation of a catalyst molding as well as to a catalyst molding comprising a catalyst for hydrogen peroxide activation obtainable or obtained by said process. Yet further, the present invention relates to a process for the activation of hydrogen peroxide, and to the use of the inventive catalyst or of the inventive catalyst molding in a reaction involving C-C bond formation and/or conversion.



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