Abstract

Process for preparing oxiranes by reacting an organic compound with a hydroperoxide in the presence of a solvent and a catalyst, which comprises at least the steps (i) to (iii):

(i) reaction of the hydroperoxide with the organic compound to give a product mixture comprising the reacted organic compound and unreacted hydroperoxide,

(ii) separation of the unreacted hydroperoxide from the mixture resulting from step (i),

(iii) reaction of the hydroperoxide which has been separated off in step (ii) with the organic compound,

wherein the reaction in step (iii) is carried out in a tube reactor which has at least two feed points for the reaction mixture comprising at least the organic compound, the hydroperoxide and the solvent or at least two outlets for the product mixture, or at least two feed points and at least two outlets.