

Uracils as inhibitors of radical chain oxidation of organic compounds

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Abstract

On the example of the model initiation reaction of 1,4-dioxane oxidation we studied antioxidant properties of a series of uracil derivatives in the form of the rate constants of chain termination of oxidation on the peroxy radical substrate k_{in} . The kinetics of uracils interaction with hydrogen hydroperoxide in water and 1,4-dioxane have also been studied. Bimolecular rate constants and activation parameters of this reaction have been defined.