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Stabilization energy of oxygen-centered radicals

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Abstract

On the calculated values of dissociation energies of O-H-bonds the stabilization energies of oxygen-centered radicals were calculated. The comparative empirical analysis of the effect of the molecule structure on thermal stability of oxygen-centered radicals was carried out. The effect of substituents on stabilization of benzoyloxyradicals and phenoxy radicals was analyzed. We obtained some empirical correlations describing the influence of the structure of the radical and the substituents on stabilization of oxygen-centered radicals.