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## **Evaluation of enthalpies of free** radicals formation by the kinetic data

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## Abstract

We have proposed a method for calculating the enthalpies of formation of free radicals ( $\mathbf{R} \cdot \mathbf{i}$ ) based on the model of intersecting parabolas through the enthalpy of formation of a molecule (RiH), bond dissociation energies (DR-H) and the ratio of the rate constants of the reactions of radical detachment ( $X^{*} + R_{i}H, X^{*} +$ R<sub>1</sub>H). With the proposed method the enthalpies of formation of 111 free radicals containing the atoms of C, H, O, S were calculated using the kinetic data. A brief description of the database on the enthalpies of free radicals, published on the Internet site of the Institute of Problems of Chemical Physics is presented.