

## **Antiradical and antioxidant properties of aromatic acids, aldehydes and alcohols and their derivatives**

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Aromatic acids, aldehydes and alcohols and their derivatives are widespread in vegetation world and are used as aromatizes, preserving agents, antioxidants, drugs and their precursors. Information about stability and reactivity of compounds under consideration with respect to radical intermediates, which are generated by the action of different stressors on the parent compounds, is needed to optimize the application of aromatic acids, aldehydes and alcohols and their derivatives. In order to obtain such information the interaction of these compounds with oxygen-centered and  $\alpha$ -hydroxyl-containing carbon-centered radicals ( $\alpha$ -HCR), which are formed in radiolysis of oxygenated and deaerated ethanol and aqueous solutions of various organic compounds, was studied in this work. It has been determined that compounds under study with different efficiency depending on their structure are able to oxidize  $\alpha$ -HYR, reduce them to the parent substances or be added to the double bond, inhibiting the processes of recombination and fragmentation of these radicals. Hydroxylated derivatives of these compounds showed antiradical properties, inhibiting radiation-induced oxidation of ethanol.