

Thematic course: The impact of environment on reactivity. Part 20.

Comparative study of reaction kinetics diene synthesis of 9-anthracene and methylantracene with maleic anhydride for the thermally initiated reaction and in microwave field

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Abstract

The reaction kinetics and the diene synthesis anthracene methylantracene-9 with maleic anhydride in aromatic series solvents, thermally initiated reaction conditions and with microwave radiation initiation was investigated. It is shown that in the case of a thermally initiated reaction reactivity of addends changes symbatically value of the ionization potential of the solvent molecules. In the case of microwave radiation initiation reactivity of addends changes symbatically value of the dipole moment of the solvent molecules. This increases the pre-exponential term Arrhenius equation. This indicates that the microwaves contributes to increasing the number of attempts reagent complex to overcome the potential barrier.