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Mathematical Modeling of the Dynamics of Macroscopic Structural Transformations in Self-Propagating High-Temperature Synthesis

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Homogeneous and heterogeneous mathematical models of the formation of the macroscopic structure of products in SHS in the case of spontaneous structural formation and under the action of constant exothermal load were described. Equations, auxiliary relations and conditions for the simplification of models were given. A list of works devoted to the modeling of macrostructural transformations and a summary of the main results was provided. Possible directions for further development of research on the structural dynamics of a substance in SHS were proposed.