
NUMERICAL SIMULATION OF ALUMINIUM PARTICLE AEROSOL COMBUSTION EMPLOYING A PROBABILITY DENSITY FUNCTION

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We analysed existing approaches to simulating ignition and combustion processes in powdered metal fuels. The study considers a mathematical model of an aluminium particle aerosol and suggests a new finite difference scheme for solving a system of differential systems numerically. We show good convergence between the computation results we obtained and the data presented in the publication [1].

Keywords

Ignition, combustion, powdered metal fuels, probability density function

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