

INFLUENCE OF THE POLARIZATION
OF MOLECULES OF METAL OXIDES
ON THE DIFFUSION COEFFICIENT
IN SMOKY PLASMAS

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S u m m a r y

We study the influence of the polarization of molecules of metal oxides on the diffusion coefficient in a smoky plasma that is formed by the combustion of a metal powder in air. It is shown that the electrostatic dipole-charged grain interaction leads to a decrease in the diffusion coefficient. The values of the diffusion coefficients of aluminum and magnesium oxides in a smoky plasma as functions of the plasma temperature and the size and the charge of grains are determined.