

## Electrical Breakdown in a Mixture of CO<sub>2</sub> and N<sub>2</sub> in Mars-Like Conditions

The model of electrical breakdown in a mixture of carbon dioxide and nitrogen in conditions similar to that on the surface of Mars is presented. The model includes reactions of impact ionization, associative attachment, dissociative recombination, excitation of oxygen atoms, charge exchange reactions, and electron and ion losses on dust particles. The magnitudes of the breakdown electric field and saturation electron density are estimated using numerical simulations.

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