

INTERACTIONS BETWEEN SPACECRAFT AND FLOWS OF PLASMA AND ELECTROMAGNETIC RADIATION IN EARTH ATMOSPHERE

A brief analysis of the results of studies conducted at the Department of Mechanics of Ionized Media of the Institute of Technical Mechanics of the National Academy of Sciences of Ukraine and the State of Space Agency of Ukraine in the period of 2011 – 2015 is presented. These studies were focused on the three lines characterizing interactions of magnetized spacecraft with the ionospheric plasma; structural materials with supersonic flows of atomic oxygen and vacuum ultraviolet radiation in the Earth atmosphere; the ITM's scientific equipment for the Sich-2 satellite with the environment.

Keywords: *magnetized rigid body, magnetohydrodynamic interactions, heat flows, atomic oxygen, ultraviolet radiation, diagnosis of ionospheric plasma.*

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