

## INTERACTION OF HIGH-SPEED PARTICLES AND TEMPERATURE CONTROL ELEMENTS OF A SPACE VEHICLE

©2009 M. V. Izyumov<sup>1</sup>, N. D. Syomkin<sup>2</sup>, M. P. Kalayev<sup>2</sup>

<sup>1</sup>Samara Space Rocket Centre “TsSKB-Progress”

<sup>2</sup>Samara State Aerospace University

The paper deals with the problem of diagnostics of temperature control elements of space vehicles (heat pipes and temperature control coatings). The results of experiments on simulating high-speed particle interaction with heat pipes and temperature control coatings are discussed.

*High-temperature heat pipes, temperature control coatings, particle accelerator, solar power reflectors, solar power absorbers.*

**Izyumov Mikhail Vladimirovitch**, head of sector, Samara Space Rocket Centre “TsSKB-Progress”, e-mail: [izumov\\_mike.csdb@mail.ru](mailto:izumov_mike.csdb@mail.ru). Area of research: aerospace instrument engineering, space research.

**Syomkin Nikolay Danilovitch**, professor, doctor of technical science, Samara State Aerospace University, e-mail: [semkin@ssau.ru](mailto:semkin@ssau.ru). Area of research: aerospace instrument engineering, space research.

**Kalayev Mikhail Pavlovitch**, engineer, Samara State Aerospace University, e-mail: [semkin@ssau.ru](mailto:semkin@ssau.ru). Area of research: aerospace instrument engineering, space research.