



## Panoramic energy-mass-spectrometer ARIES for Phobos-Soil mission.

O. Vaisberg (1), G. Koinash (1), P. Moiseev (2), V. Letunovski (3), and L. Avanov (4)

(1) Space Research Institute, Space plasma, Moscow, Russian Federation (olegv@iki.rssi.ru), (2) Asron Electronics enterprize, Olel, Russia, (3) SKB KP, Tarussa, Russia, (4) CSPAR, UAH, Huntsville, USA

The energy-mass spectrometer for Roscosmos Phobos-Soil mission is described. The purpose of experiment is to study solar-wind-Mars interaction, solar wind induced atmospheric losses and accelerated sputtered ions from Phobos. Instrument consists of instantaneous 2 feeding electro-optics, toroidal electrostatic analyzer, and position-sensitive detector. Mass-analysis is provided by time-of flight technique. Characteristics of instrument are presented as obtained from numerical simulation and laboratory tests.