Geophysical Research Abstracts, Vol. 9, 03223, 2007
SRef-ID: 1607-7962/gra/EGU2007-A-03223

Energetic ions in the magnetosheath observed on Interball-1

K. Kudela , M. Slivka

Institute of Experimental Physics, Slovak Acad. Sci., Watsonova 47, 04001 Kosice, Slovakia (kkudela@kosice.upjs.sk/++421556336292)

A review of fluxes of middle energy ions (˜20 - 500 keV) on Interball-1 observed within the magnetosheath during more than 4 years of measurements is presented. Few case studies illustrate the variability of the angular distribution and of the energy spectra of ions. Dependences on the position inside the magnetosheath, on geomagnetic activity, on solar wind and IMF as well as on local magnetic field are presented. The simplified geometry assumptions with respect to the bow shock and magnetopause position is used. The indications of particle leakage from the magnetosphere as well as of acceleration at the bow shock are discussed. This work was supported by the Slovak Research and Development Agency under the contract No. APVV-51-053805.