Geophysical Research Abstracts, Vol. 8, 08291, 2006
SRef-ID: 1607-7962/gra/EGU06-A-08291

Capabilities of the Plasma Monitor onboard the ROSETTA Lander

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Main scientific goals and technical description of the plasma monitor (SPM) onboard the ROSETTA Lander is presented. SPM is part of the experiment package ROMAP. The ROMAP sensor includes beside, electrostatic analyser and Faraday cup a fluxgate magnetometer and two pressure sensors. The poster demonstrates the high integration level of sensors and electronics. That is the basic for a combined field/plasma measurement instrument with less than 1 Watt power consumption and 1 kg mass. The scientific objectives are long term measurements on the surface to study the cometary activity as function of the distance from the Sun. First test results of the electrostatic analyser measured during cruise phase are presented. Instrument health and capabilities are discussed. Possible modification of SPM is examined and a outlook for application of this type of simple plasma monitors for future space investigation are given.