



ENA Observations from the near-Earth environment

Peter Wurz

Universität Bern, Physikalisches Institut, Bern, Switzerland (peter.wurz@space.unibe.ch, 41 31 631 44 05)

Using Energetic Neutral Atoms (ENAs) for scientific investigations of the boundary of our heliosphere made a major progress during the last few decades. ENA-based studies started with occasional measurements being performed during favourable observation conditions, continued with the development of dedicated instruments, and today ENA instruments have an important role in space missions for the investigation of the heliospheric boundary region. ENA investigations are now being employed on a routine basis in space research for remote sensing of plasma populations in planetary environments.

Observations of ENAs from the termination shock region have been reported from CELIAS instrument on SOHO, the LENA and HENA instruments on IMAGE, and the ASPERA instruments on Mars Express and Venus Express. The most recent and most spectacular example is the IBEX mission, a NASA mission of the SMEX class, whose only scientific objective is to investigate the boundary region of the heliosphere. IBEX consists of two ENA sensors for this purpose, both of which are ENA telescopes, and no other scientific instruments. I will review the recent instrumental and observational advances in view of ENA investigations for remote sensing of the heliospheric boundary.