



Mars Express – 10 Years of Exciting New Science

Agustin Chicarro and Olivier Witasse

European Space Agency, Solar System Division, Noordwijk, Netherlands (agustin.chicarro@esa.int, +31715654697)

The ESA Mars Express mission was launched in 2003 and has been orbiting the planet Mars for almost ten years. All the instruments and components of the spacecraft are still working flawlessly. This first European planetary mission has been providing exciting new scientific results on the interior structure of the red planet, its surface mineralogy and geological processes, its atmospheric dynamics and chemistry, the interaction of its upper atmosphere with the solar wind, as well as the geodesy of its satellite Phobos. Also, Mars Express is helping to pave the way of future European Mars Exploration, including the Trace Gas Orbiter in 2016, the ExoMars rover in 2018 and beyond. Among the abundant Mars Express results, the Top 10 scientific highlights of the mission will be presented, addressing all fields of Mars investigation. In addition, the INSPIRE mission concept for a Mars Network Science Mission in the early 2020's will be introduced.