CHAMPOLLION

M. Neugebauer (Jet Propulsion Laboratory, California Institute of Technology, Pasadena, (;A$110{1, USA)
J.-P. Bibring (IAS, 91405 Orsay, France)

As part of the International Rosetta Mission, the US NASA and the French CNES will provide a cornet lander to be released from the orbiter and soft land on Comet P/Wirtanen to perform in situ analyses of the cometary nucleus. "This lander is named Champollion after the translator of the Rosetta stone. '1 he investigations on Champollion will focus on objectives that cannot be performed from the Rosetta orbiter. The instruments on Champollion will determine the elemental, molecular, mineralogical, and isotopic compositions of material down to depths of --1 m below the surface of the nucleus. 1 he physical structure of the nucleus will be determined through measurements of the near-surface strength, density, texture, porosity, ice phases, and thermal properties. Images will be obtained at resolutions ranging from 1 m to 5 pm. 1 he nominal lifetime of the lander on the surface of the cornet is 84 hours, during which measurement sequences can be repeated if necessary and subsurface samples can be obtained from three different depths.

Marcia Neugebauer
MS 169-506
Jet Propulsion Laboratory
Pasadcma,CA91109, USA
tel: 818-354-2005
fax: 818-354-8895
e-mail: MNeugeb@jplsp.jpl.nasa.gov

4. Standard

5. Oral

6. No

2. Space Exploration of Cometary Nuclei

3. Nicolas Thomas