

Rosetta Asteroid Targets

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The Rosetta mission was selected by European Space Agency (ESA) in 1993 as cornerstone mission including a rendezvous with in situ investigation of a comet and two asteroid fly-bys. The aim of the mission is to investigate the origin of our Solar System through the composition of planetesimals and their origin over the last 4.6 billion years.

The mission has been launched with success on March 2nd 2004. The mission include a long orbital rendezvous with the 67P/Churyumov-Gerasimenko comet nucleus (2014) and the fly-bys of the asteroids 2867 Steins (2008) and 21 Lutetia (2010). The mission as well as the choice of the asteroid targets are briefly presented.

The present knowledge of the two asteroid targets' physical properties will be presented as well the expected science return from the asteroid fly bys.

Moreover, a necessity of new mission to asteroids will be also discussed as well as the developed studies and the possibility to have this type of mission within European National Agencies and /or ESA.