

# COMPOSITIONAL PROPERTIES OF 67/P CHURYUMOV-GERASIMENKO, 1CERES AND 4VESTA: AN OVERVIEW OF THE ROSETTA AND DAWN RESULTS

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The surface composition of the 67P Churyumov-Gerasimenko, 1Ceres and 4Vesta will be presented taking into account the main results obtained by the spectral imagers VIRTIS [1] and VIR [2] respectively onboard the ESA Rosetta and the NASA Dawn missions. The pristine origin of the comet 67P has been proved by the interdisciplinary analysis performed by the different instrument onboard the Rosetta spacecraft. Hyperspectral data obtained by VIRTIS have revealed a spectrally homogeneous, almost dry and organic rich nucleus [3,4]. Occurrence of water ice patches of limited size have been discovered and monitored during the comet approaching the perihelion [5]. For the first time it has been observed a strong dynamic and the evolution of the sublimation/condensation phases for H<sub>2</sub>O and CO<sub>2</sub> [6,7]. The Dawn mission orbited for 1 year around Vesta and is currently mapping the dwarf planet Ceres since the beginning of 2016. Vesta was finally demonstrated to be the parent body for the HED meteorite clan showing a hemispherical distribution of these materials, being the southern regions richer in Diogenitic material [8]. Peculiar dark regions on Vesta and bright spots on Ceres were discovered and associated to exogenous contamination in the former case and to endogenous processes on the dwarf planet [9,10].

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