

Monitoring of the Deep Impact Target, 9P/Tempel 1

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Monitoring of the Deep Impact target, the comet 9P/Tempel 1, was initiated at the Calar Alto Observatory (MPG-CSIC, Almería, Spain) on Jan. 5, 2005 and by simultaneous and/or complementary observations at the Sierra Nevada Observatory (IAA-CSIC, Granada, Spain). From the Calar Alto observatory, this monitoring consists of R broad band images of the cometary coma (and incipient tail) typically every 3 days, as well as spectrophotometric observations once every month, whereas from the Sierra Nevada Observatory the comet is regularly imaged in R and I broad band filters. The preliminary analysis carried out so far (to the date of March 1, 2005) shows no clear indication of inner coma asymmetries due to jet activity at different rotation phases, although a more detailed investigation is still under progress. The dust production, as parameterized by means of the Afp parameter, the dust colour and the coma gradient, and the gas (CN, C₂, C₃, NH₂, O(¹D)...) production rates (or their upper limits) will be presented as a function of the heliocentric distance. These results will be integrated in a comprehensive comet study to characterize its evolution and behaviour over the duration of the Deep Impact mission, i.e. before, during and after the impact, and to unveil the nature of these primitive bodies of the Solar System.