

## ISO Observations of Comets

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The Infrared Space Observatory (ISO) offered us the opportunity to observe celestial bodies from 2.4 to 196 microns. A wealth of new results were obtained for comets. Spectroscopic investigations have shown band fluorescence emissions for H<sub>2</sub>O, CO and CO<sub>2</sub>, and rotational line emissions for H<sub>2</sub>O. High resolution spectra of water vapor around 2.7 microns in comets C/1995 O1 (Hale-Bopp) and 103P/Hartley 2 have permitted measurement of the water rotational temperature and ortho-to-para ratio. The thermal region of the spectra showed the signatures of crystalline, Mg-rich olivine and emission features attributed to water ice. Broad band photometry of the coma allowed to investigate several properties of cometary dust, such as color temperature, size distribution and production rate. For several comets, it was possible to separate the nuclear and coma contribution in infrared images obtained from the ISO camera. Inferences concerning the nucleus size and albedo were obtained.