

Sulfurous Ceres

Hubble Space Telescope was used to observe dwarf planet Ceres at ultraviolet-visible (UV-vis) wavelengths to study surface composition and complement Infrared measurements made by Dawn. Two new major types of species were detected:

- **Sulfur and SO₂** – likely responsible for UV-vis spectral variations seen across the surface of Ceres. These species may be linked to recent geothermal activity on Ceres, hinted at by Dawn and Herschel observations.
- **Graphitized carbon** is a natural weathering product, the result of charged particle bombardment and thermal processing of carbonaceous species. This is the first time it has been detected on the surface of another object in the solar system. It is expected that other dark asteroids could have graphitized carbon on their surfaces as well.

