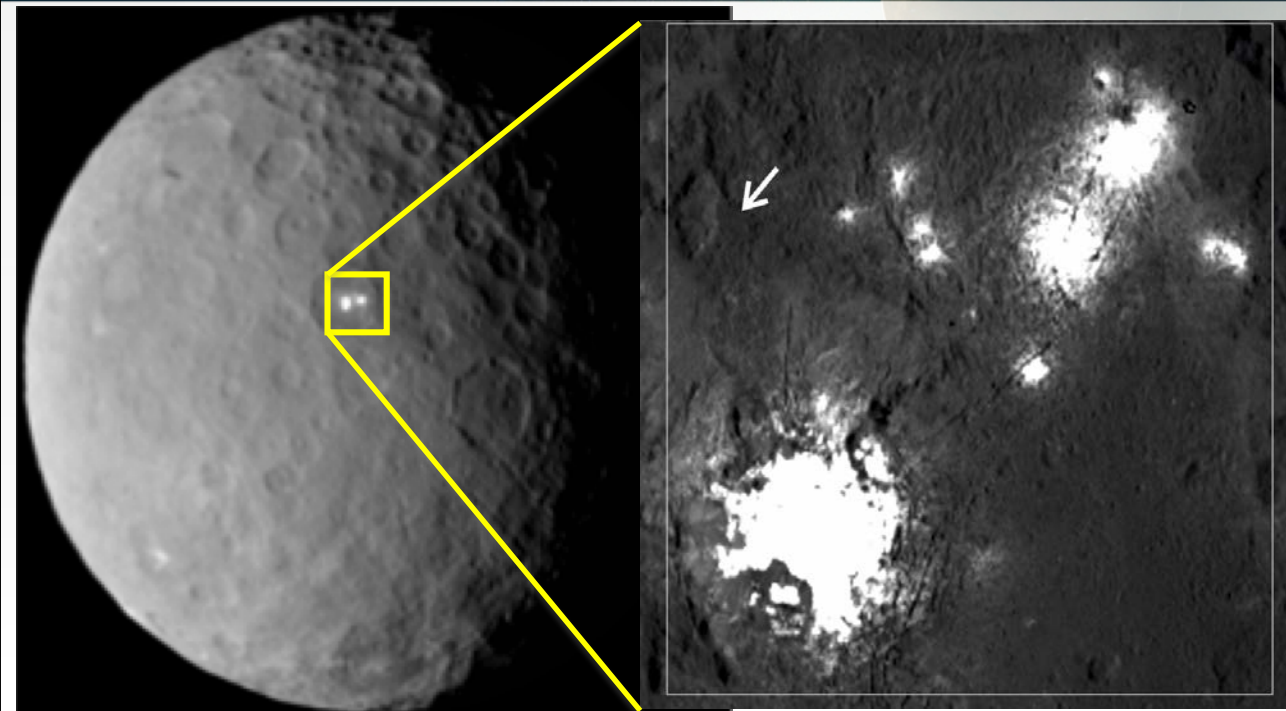
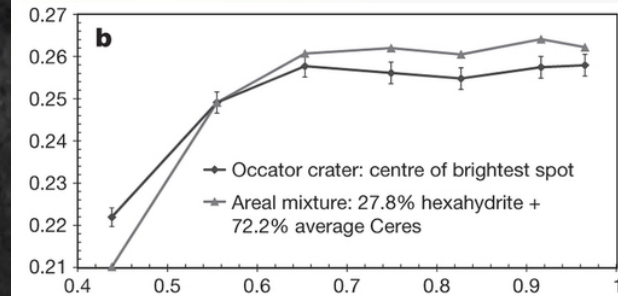


Mineral Salts Seen in Ceres Bright Spots



below: spectrum of a Ceres bright spot compared with a combination of average Ceres surface and a hexahydrate lab spectrum



The nature of the enigmatic bright spots on dwarf planet Ceres have been a mystery since NASA's Dawn spacecraft arrived at the target in 2014, but new results shine a light on their source.

- Comparing spectra taken by Dawn's Framing Camera to laboratory samples, the team show that these spots contain hydrated magnesium sulfates commonly known on Earth as Epsom salts, mixed with Ceres background composition.
- As a method for deposition, the scientists suggest briny water erupted on to the surface of Ceres and sublimated leaving behind the highly reflective magnesium salt. A close up view of the bright spots in the crater Occator shows a network of 'cracks' that could be the source of the brine, and observations of the crater have shown haze clouds that appear on daily time scales.
- The nature of this material and the potential formation mechanism indicate that Ceres must have gathered material from beyond the point in our solar system where it is cool enough for water molecules to condense.