

Organic Molecules Found on Ceres



[Header image courtesy of NASA]

A team of planetary scientists, led by Maria Cristina De Sanctis, an astrophysicist at the Italian National Institute of Astrophysics in Rome, [just announced](#) they have discovered organic molecules on the dwarf planet Ceres. Ceres is the largest object in the asteroid belt between Mars and Jupiter. The scientific team used data from NASA's [Dawn space probe](#), which currently orbits Ceres.

By using a visible and infrared light spectrometer, the team was able to [examine the light](#) reflected off of Ceres. Because certain molecules absorb certain frequencies of light, the probe can pick up the frequencies that are missing.

Near the Ernutet crater, the probe discovered molecules that have methyl and methylene groups—chemical chunks of carbon and hydrogen atoms. DeSanctis and her colleagues are fairly confident that the molecules formed on Ceres, and didn't come from a passing asteroid because the heat of impact would have destroyed them.

Why is this significant? Organic molecules are necessary for the formation of life and understanding their distribution across the galaxy could be instrumental in understanding the origins of life on Earth. [The findings on Ceres](#) are the most concrete evidence for organic compounds existing on any solar system body other than Earth.

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