

Moon Mimas

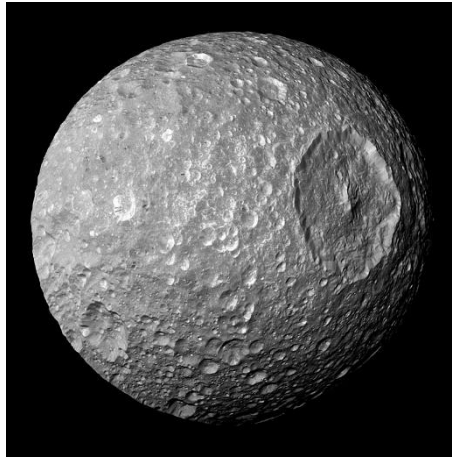


Image (Mimas):

Autor: NASA / JPL-Caltech / Space Science Institute

https://en.wikipedia.org/wiki/Mimas#/media/File:Mimas_Cassini.jpg

The name of the moon comes from Greek mythology and refers to a giant. Mimas is an icy moon. Mimas has a bound rotation, similar to the Earth's moon. Despite its small size, it is in hydrostatic equilibrium, i.e. it has a spherical shape. This makes it the smallest known object in the solar system that is in hydrostatic equilibrium.

Due to its low density, it is assumed that Mimas consists mainly of water ice. However, recent investigations into the rotation of the moon also point to an ocean beneath the ice crust. This not only arouses the interest of astronomers, but also spurs the search for extra-terrestrial life: where there is liquid water, life may also have developed.

The surface is characterised by a large number of craters. With its many craters, Mimas is one of the most crater-rich objects in the solar system. The large Herschel crater, whose diameter is almost a third of the moon's diameter, is particularly striking.

Important data of Mimas:

Semi-major axis:	185,520 km
Periapsis – Apoapsis:	181,770 km – 189,270 km
Eccentricity:	0.0202
Inclination (Saturn):	1.53°
Sidereal orbit period:	0.94 d
Average Orbital speed:	14.31 km/s
Mean diameter:	396.6 km
Mass:	ca. 3.79×10^{19} kg
Mean density:	1.15 g/cm ³
Sidereal rotation period:	0.94 days
Surface gravity:	0.064 m/s ²
Escape velocity:	160 m/s
Surface temperature:	–196 °C bis –181 °C (77 K bis 92 K)

Link: <https://en.wikipedia.org/wiki/Mimas>