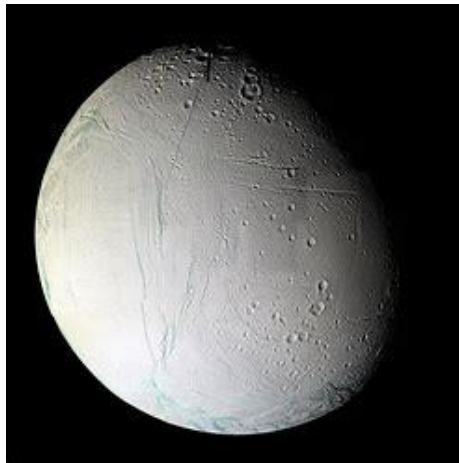


Moon Enceladus



Picture (Enceladus):

Author: National Aeronautics and Space Administration (NASA) / Jet Propulsion Laboratory (JPL)

https://en.wikipedia.org/wiki/Enceladus#/media/File:PIA17202_-_Approaching_Enceladus.jpg

The name of the moon comes from Greek mythology. Enceladus is one of the giants. Enceladus is an icy moon. Due to Saturn's tidal forces, there is cryovolcanic activity, which produces very high fountains of water ice particles that create a thin atmosphere. These fountains also feed Saturn's outermost ring (E ring). From the volcanic activity, it can be concluded that there is liquid water beneath the continuous icy surface of the moon. This means that life could also have developed on this small moon. Enceladus has a bound rotation (day and month are the same length). It has a 2:1 orbital resonance with Dione, is close to a 3:2 resonance with the moon Mimas and a 4:3 orbital resonance with the next outer moon Tethys. The axis of rotation is perpendicular to the orbital plane. Enceladus is connected to Saturn along Saturn's magnetic field lines by an electric current of electrons, which produce glowing spots in UV light at the poles of Saturn's atmosphere.

Important data of Enceladus:

Semi-major axis:	237,948 km
Periapsis – Apoapsis:	236,830 km – 239,066 km
Eccentricity:	0.0047
Inclination (Saturn):	0.019°
Sidereal orbit period:	1.37 d
Average Orbital speed:	12.64 km/s
Mean diameter:	504.2 km
Mass:	about 0.00002 Earth masses ($1.08 \cdot 10^{20}$ kg)
Mean density:	1.61 g/cm ³
Sidereal rotation period:	1.37 days

Axis tilt:	0°
Surface gravity:	0.11 m/s ²
Escape velocity:	239 m/s
Surface temperature:	-240 °C bis -128 °C (33 bis 145 K)

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