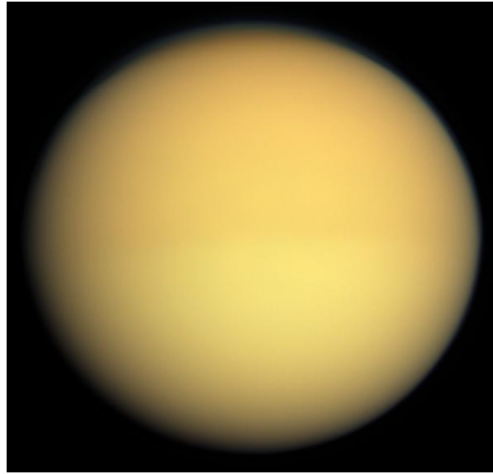


# Moon Titan



Picture (Titan):

Author: NASA/JPL-Caltech/SSI/Kevin M. Gill

[https://en.wikipedia.org/wiki/Titan\\_\(moon\)#/media/File:Titan\\_in\\_true\\_color\\_by\\_Kevin\\_M.\\_Gill.jpg](https://en.wikipedia.org/wiki/Titan_(moon)#/media/File:Titan_in_true_color_by_Kevin_M._Gill.jpg)

Its name stands for the totality of the Titans from Greek mythology. Titan is the largest moon of Saturn and the second largest in the solar system. Because of its dense atmosphere (the only moon with a dense atmosphere), it is one of the most interesting objects in the solar system. Due to the inclined axis of rotation, there are seasons on the moon. Besides Earth, Titan is the only celestial body whose atmosphere consists mainly of nitrogen (about 98%). In addition, there are clouds in the atmosphere, which consist of methane and partly also of ethane. These clouds can rain down and form lakes on Titan. According to estimates, the moon has about a hundred times the liquid hydrocarbons of the Earth. The mountains of Titan are formed by the shrinkage of the moon and the associated unfolding of the crust. Due to the presence of wind, dunes also form. Titan has volcanic activity based on cryovolcanism. Under the surface exists a water layer, under which liquid water is assumed. Titan's peculiarities make it an important research object for understanding how life can arise. Its atmosphere bears a strong resemblance to that of the primordial Earth.

## Important data of Titan:

Semi-major axis:	1,221,830 km
Periapsis – Apoapsis:	1,186,150 km – 1,257,510 km
Eccentricity:	0.029
Inclination (Saturn):	0.33°
Sidereal orbit period:	15.945 d
Average orbital speed:	5.57 km/s
Mean diameter:	5,150 km
Mass:	about 0.02 Earth masses ( $1.35 \cdot 10^{23}$ kg)
Mean density:	1.88 g/cm <sup>3</sup>
Sidereal rotation period:	15.945 days

Axis tilt:	1.942°
Surface gravity:	1.35 m/s <sup>2</sup>
Escape velocity:	2,600 m/s
Surface temperature:	-179 °C (94 K)

**Link:** [https://en.wikipedia.org/wiki/Titan\\_\(moon\)](https://en.wikipedia.org/wiki/Titan_(moon))