

## **Saturn**

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Any answer brings more questions. Although we like to think we know more about Saturn discoveries made there gave rise to new mysteries. This led us to choose as target, the second largest planet in the solar system.

Saturn was named after the god Cronus, the youngest of the Titans and father of Zeus, the most powerful of the gods.

One of the reasons that we believe Cassini should probe to study Saturn consists of huge amount of hydrogen exists on this, which may serve as an important source of energy on Earth. How atmosphere of the giant contains 96% pure hydrogen, it would be very easy to obtain it compared to water electrolysis. The most effective method of collecting hydrogen, an expedition on Saturn could be profitable.

An unusual temperature found in some of the storms on Saturn is still an objective to investigate the Cassini probe. We do not know the exact explanation highest recorded temperature in the south polar vortex inside the planet. Normally, the average temperature on Saturn is approximately  $-185^{\circ}\text{C}$ , and the temperature inside reaches  $-122^{\circ}\text{C}$ . It is a unique phenomenon in our solar system and deserves a closer look.

Another storm the superior size of Earth's is called The Great White Spot. This occurs once every complete revolution of Saturn around the Sun, and the Cassini probe has already observed significant negative variation in temperature of it's center, exploring the storm should be continued.

Also, it was observed that energy emitted through radiation are 2.5 times more than it receives from the Sun. Know the main way to Saturn lose energy: through compression due to gravity. It is estimated, that this procedure is not sufficient to explain the amount of energy recorded, and the rest are only theories. Cassini probe should seek another way to Saturn release energy.

Existing mysteries of giant gaseous promotes expedition to it, not only because we can make life easier, here on Earth, but also the fact that a detailed study on target would bring us more useful information that could be developed in future .