# EXTRATERRESTRIAL LIFE IN SOLAR SYSTEM

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### VENUS

DIAMETER: 12,104 km

To date, no definitive proof has been found of past or present life on Venus.... With extreme surface temperatures reaching nearly 735 K (462 °C; 863 °F) and an atmospheric pressure 90 times that of Earth, the conditions on Venus make water-based life as we know it unlikely on the surface of the planet.



#### TITAN

DIAMETER: 5.149.5 km

It has been speculated that life could exist in the liquid methane and ethane that form rivers and lakes on Titan's surface, just as organisms on Earth live in water. Such hypothetical creatures would take in H2 in place of 02, react it with acetylene instead of glucose, and produce methane instead of carbon dioxide.



# **CALLISTO**

DIAMETER: 4,820.6 km

Callisto is Jupiter's second largest moon. In the past, some scientists thought of Callisto as a boring "ugly duckling moon". That's because the crater-covered world didn't seem to have much going on—no active volcanoes or shifting tectonic plates. But data from NASA's Galileo spacecraft revealed Callisto may have a secret: a salty ocean beneath its surface. That finding put the once seemingly dead moon on the list of worlds that could possibly harbor life.



#### **MARS**

**DIAMETER: 6,779 km** 

The possibility of life on Mars is a subject of huge interest in astrobiology due to its proximity and similarities to Earth Cumulative evidence suggests that during the ancient Noachian time period, the surface environment of Mars had liquid water and may have been habitable for microorganisms. The existence of habitable conditions does not necessarily indicate the presence of life.



# **EUROPA**

DIAMETER: 3121.6Km

Europa, one of Jupiter's 79 known moons, is covered by a layer of ice up to 15 miles deep—and there's likely liquid water beneath where life could dwell. ... As for what's beyond the Milky Way, Professor Grady says the environmental conditions that led to life on Earth are 'highly likely' to be replicated.