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TRITON: A POTENTIALLY LIFE-HARBORING MOON

Abstract

During most of the modern era, humanity has been imagining about life outside the Earth, and in recent times, multiple clues have emerged that could support this idea. In the Solar System, there are several candidates for the existence of extraterrestrial life, therefore this paper discusses why Triton, the biggest moon of Neptune, could be one of them. It is believed that Triton could host life in a different form than we know it, due to the presence of ammonia, nitrogen, and methane—essential elements for life. Their presence on Triton suggests the possibility for the existence of organisms. Furthermore, Triton's potential is enhanced by the possible presence of an ocean between its core and the ice layer on the surface. The presence of ammonia is crucial for maintaining this fluid in a liquid state, which increases the possibility that Triton could be a habitable world.