Abstract Submitted
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Advanced Terrain Manipulator for Organized Sample Preparation and Handling for Evaluation and Research of Europa (ATMOSPHERE)[1] JUDE HADDAD, ISAAC KOZAK , DOUGLAS MARSH, None — Discovering life beyond Earth remains crucial to understanding biological origination and early evolution. Missions to Mars include investigations for organic signatures, but lifeforms may have transitioned from meteors to Earth. Europa is a strong candidate for finding a second independent existence of life within the Solar System due to presence of water ice that is considered critical to the formation and sustainment of life. Further investigation of the surface is justified to perform testing capable of analyzing samples to determine if life is present on Europa. ATMOSPHERE is a rover that is designed to land on and traverse the surface of Europa to gather data about biological signatures. The mission design relies on data from the Europa Clipper mission. ATMOSPHERE is equipped with instruments that withstand the high radiation from Jupitar and ensure proper acquisition and testing of ice core samples gathered in the short span of the mission. Data from the instrumentation provides evidence needed to verify the presence or lack of lifeforms on Europa.

[1]Advanced Terrain Manipulator for Organized Sample Preparation and Handling for Evaluation and Research of Europa

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None

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