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Space Mineral Resources, Asteroid Mining and Lunar/Mars insitu (5)

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SPACE CURRENCY – WATER

Abstract

The recent International Academy of Astronautics study entitled “Space Mineral Resources: A Global Assessment of Challenges and Opportunities,” resulted in many insights into the future leveraging of resources. This paper will develop the basis for the following statement. “Water will be the future currency of Space!” It seems to the author that the availability of water in the solar system and the multiple ways to use water will lead to the recognition of the value of in-situ H₂O. Mining water will be one of the first activities leading to the commercial utilization of space minerals. The key is that lifting water from the surface of the Earth seems counter-productive as it is available and has great value where it is. Mining ice, collecting water from underground reserves or collecting it from an atmosphere will lead to a resource that can provide Oxygen for breathing, water for drinking and plant growth, O₂ H₂ for fuel, and a material that can protect from radiation. Each of these valuable usages will stimulate the search and utilization of the space mineral resource called H₂O.