

IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (A1)
Life Support, habitats and EVA Systems (7)

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OXYGEN AND FOOD PRODUCTION USING A MICROALGAE PHOTOBIOREACTOR FOR A
LUNAR BASE

Abstract

Future human spaceflight missions will go beyond Low Earth Orbit, with one potential scenario being a base on the Moon Surface. A permanently inhabited base might require a further closure of the material cycles involved on the Life Support System (LSS), to reduce dependency from Earth's resources. Current LSS physico-chemical technologies at the ISS can recycle 90