

IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (A1)  
Interactive Presentations - IAF/IAA SPACE LIFE SCIENCES SYMPOSIUM (IP)

Author: Mr. Bilal Sayın  
Türkiye, bilalsayin9@gmail.com

## POTENTIAL HABITABLE ENVIRONMENT FOR CULTIVATING ALGAE: PROXIMA CENTAURI B

**Abstract**

**Introduction:** Proxima Centauri b has been discovered as a planet orbiting a nearby star and potentially harboring conditions suitable for the existence of life. The internal structure and surface conditions of this planet should be examined to determine the presence of simple organisms that could potentially support life.

**Internal Structure and Surface Conditions:** The internal structure of Proxima Centauri b indicates that it is a dense solid planet, likely containing a layer of water. This means that liquid water could exist on the planet's surface, providing a suitable environment for the development of organisms capable of photosynthesis.

**Cultivability of Algae:** Simple life forms capable of photosynthesis, such as algae, require access to sunlight. The proximity of a planet like Proxima Centauri b to its star could affect the amount of light on the surface, which could determine the cultivability of organisms capable of photosynthesis. However, further research is needed to determine whether the surface conditions of the planet are suitable for the development of life forms such as photosynthetic algae.

**Results and Discussion:** The internal structure and surface conditions of Proxima Centauri b could potentially provide a suitable environment for simple life forms such as algae. However, further research is needed to reach a definitive conclusion on this matter. Future observations and discoveries will help us better understand whether Proxima Centauri b is a suitable candidate for the existence of life.