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By using Shibastra Theory mathematical discovery of Proxima Centauri

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Abstract-

Proxima Centauri c is mainly a candidate of super Earth or gas dwarf, orbits Proxima Centauri c at 1.5 AU, sparking interest in astrobiology. By applying Shibastra Theory, I predict life on Proxima Centauri c is unlikely due to extreme cold (-234°C) and low radiation resistance. The Shibastra Index (SI) which I invented calculation supports this, suggesting Proxima Centauri c's environment is hostile to life as we know it. This study explores Proxima c's habitability using Shibastra Theory, analyzing spectral environment, habitat constraints and biotic adaptations. My results indicate Proxima Centauri c's conditions are unfavorable for life, making it a challenging target for astrobiological research. My invented Shibastra Theory provides a framework for

predicting life on exoplanets like Proxima Centauri c, guiding future exploration. With a calculated SI of 0.005, Proxima c's prospects for supporting life appear low. My research contributes to understanding exoplanetary habitability and the search for life beyond Earth.

Introduction-

Proxima Centauri c's discovery has opened avenues for exploring habitability beyond our solar system. It is located 4.2 light years away, this planet orbits Proxima Centauri c is a small and cool red dwarf star. Previous research suggests Proxima Centauri c is a gas dwarf, with a mass about 7 times that of Earth. The Shibastra Theory integrates factors like stellar interaction, atmospheric conditions and temperature fluctuations to predict life.

Proxima Centauri c, the closest star to the Sun, is a flare star, meaning it experiences sudden increases in brightness due to magnetic activity. This research activity can impact the habitability of surrounding planets. Proxima c, orbiting at 1.5 AU, is likely to be a cold and dark world, with temperatures around -234°C .

Previous studies suggest Proxima Centauri c might have a rocky core, surrounded by a thick atmosphere, similar to Neptune. However, its existence is still disputed, with some research attributing the observed radial velocity signal to systematic effects rather than a planet. If Proxima Centauri c exists, it's likely to be a challenging target for astrobiological research.

The search for life beyond Earth has driven more interest in exoplanetary science. Proxima Centauri c's discovery offers a unique opportunity to explore habitability in extreme environments.

Proxima Centauri c's orbital period is approximately 1,900 days, with an eccentricity of 0.04. Its inclination is around 133° , suggesting a possible ring system or moon. The planet's mass and size suggest a surface gravity similar to Earth's, but its atmosphere is likely to be thin or non-existent.

The discovery of Proxima Centauri c has sparked debate about the possibility of life in the Proxima Centauri system. While Proxima B, the inner planet, is considered a potential candidate for habitability, Proxima c's extreme environment makes it less likely to support life. However, the search for biosignatures in Proxima c's atmosphere could provide insights into the planet's composition and potential for life.

Research on Proxima c's habitability is ongoing, with scientists exploring various scenarios for the planet's formation and evolution. The possibility of a subsurface ocean or hydrothermal activity on Proxima c could provide a habitat for life, but this remains speculative.

The study of Proxima c's atmosphere, if it exists could provide clues about the planet's composition and potential for life. Spectroscopic analysis of Proxima c's atmosphere could reveal signs of biological activity, such as oxygen or methane. However, the challenges of detecting biosignatures on Proxima c are significant, given its distance and extreme environment.

Proxima Centauri c's existence and characteristics are still being studied, with ongoing research aiming to better understand this enigmatic planet. The possibility of life on Proxima c remains an intriguing question, driving further exploration and research.

The discovery of Proxima c has implications for our understanding of planetary formation and evolution. The planet's mass and orbit suggest a possible formation scenario, involving migration and interaction with the protoplanetary disk. But further study of Proxima c could provide insights into the formation of planetary systems around low mass stars.

Proxima Centauri c's environment is likely to be shaped by its star's activity, with flares and stellar winds impacting the planet's atmosphere and surface. The possibility of a magnetic field on Proxima c could provide protection against stellar radiation, but this remains uncertain.

Research on Proxima c is ongoing, with scientists exploring various aspects of the planet's characteristics and potential for life. The study of Proxima c and other exoplanets will continue to advance our understanding of planetary formation and the search for life beyond Earth.

Methods of Prediction-

My Shibastra Theory proposes that life on Proxima Centauri c would evolve based on spectral environment, habitat constraints and biotic adaptations. I calculate the Shibastra Index (SI) by using factors like habitat adaptability, interaction with the star, atmospheric conditions and radiation exposure.

Shibastra Index (SI) Calculation:

$$SI = (H * I * A * T * R) / (S * B)$$

- H: 0.3 (hostile environment)
 - I: 0.2 (minimal interaction)
 - A: 0.2 (thin atmosphere)
 - T: 0.2 (extremely cold)
 - R: 0.5 (low radiation resistance)
 - S: 0.6 (adaptation to limited light)
 - B: 0.4 (possible subsurface ecosystem)
- SI \approx 0.005

1. Multiply the parameters:

$$H * I * A * T * R = 0.3 * 0.2 * 0.2 * 0.2 * 0.5 = 0.0012$$

2. Multiply S and B:

$$S * B = 0.6 * 0.4 = 0.24$$

3. Divide of H, I, A, T and R by S and B:

$$SI = 0.0012 / 0.24 \approx 0.005$$

The Shibastra Index (SI) for Proxima Centauri c is approximately 0.005, indicating a low likelihood of life.

Results and Discussion-

By applying my Shibastra Theory to Proxima C, i calculate an SI of approximately 0.005, suggesting life is unlikely. The planet's extreme cold and low radiation resistance support this conclusion. As Proxima c's environment is hostile to life as we know it.

Differences between previous research and this novel research:

Previous Research-

- Focused on Proxima Centauri b, the inner planet and its habitability
- Used traditional methods to assess habitability, such as equilibrium temperature and atmospheric models
- Discussed the possibility of life on Proxima b, considering factors like stellar irradiation and planetary rotation
- Limited discussion on Proxima Centauri c, with some studies suggesting it might be a super-Earth or gas dwarf.

My Novel Research-

- Applies the Shibastra Theory, a new framework for predicting life on exoplanets to Proxima Centauri c
- Calculates a Shibastra Index (SI) of approximately 0.005, indicating a low likelihood of life on Proxima c
- Considers a broader range of factors, including spectral environment, habitat constraints and biotic adaptations
- Provides a novel prediction of Proxima c's habitability, suggesting it is unlikely to support life due to extreme cold and low radiation resistance

Key Differences-

- Focus on Proxima c: This research focuses on Proxima Centauri c, whereas previous studies focused on Proxima b or discussed Proxima c briefly.
- Novel Methodology: The Shibastra Theory offers a new approach to assessing habitability, distinct from traditional methods.
- Comprehensive Analysis: This research considers a wider range of factors influencing habitability, providing a more comprehensive analysis.
- Prediction and Implications: The Shibastra Index calculation provides a clear prediction of Proxima c's habitability, with implications for future research and exploration.

Previous research on Proxima Centauri c has been limited and inconclusive, with some studies suggesting it might be a super-Earth or gas dwarf about 7 times as massive as Earth, orbiting at roughly 1.5 astronomical units (220,000,000 km) every 1,900 days (5.2 years).

In contrast, this novel research applies the Shibastra Theory to Proxima Centauri c, calculating a Shibastra Index (SI) of approximately 0.005, indicating a low likelihood of life on the planet due to extreme cold and low radiation resistance.

Key differences:

- Focus on Proxima c: This research specifically focuses on Proxima Centauri c, whereas previous studies have primarily discussed Proxima b or mentioned Proxima c briefly.
- Novel Methodology: The Shibastra Theory offers a new approach to assessing habitability, distinct from traditional methods.
- Comprehensive Analysis: This research considers a broader range of factors

influencing habitability, including spectral environment, habitat constraints and biotic adaptations.

Conclusion-

Proxima Centauri c's habitability remains uncertain, but the Shibastra Theory predicts life is unlikely. Further research and observations are crucial to understanding this exoplanet's mysteries.

This research is novel because it applies the Shibastra Theory, a new framework for predicting life on exoplanets to Proxima Centauri c. Unlike previous studies that focused on traditional methods like equilibrium temperature and atmospheric models, where the Shibastra Theory considers a broader range of factors, including spectral environment, habitat constraints and biotic adaptations.

Novel aspects:

- New theoretical framework: Shibastra Theory offers a fresh approach to assessing habitability.
- Comprehensive analysis: Considers multiple factors influencing habitability, providing a more complete picture.
- Focus on Proxima c: Specifically applies the Shibastra Theory to Proxima Centauri c, providing new insights into this exoplanet's habitability.

The main difference between my previous Shibastra theory which i invented research about Proxima Centauri b and this my research is the focus on Proxima Centauri c instead of b. Previous studies applied the Shibastra Theory to Proxima b, predicting life might resemble extremophiles, with a Shibastra Index (SI) of approximately 0.755, suggesting possible extremophilic life. In contrast, this research applies the Shibastra Theory to Proxima Centauri c, calculating an SI of approximately 0.005, indicating a low likelihood of life due to extreme cold and low radiation resistance.

Key differences:

- Focus: Previous research focused on Proxima b, while this study focuses on Proxima Centauri c.
- Shibastra Index (SI): Proxima b's SI is 0.755, indicating possible life, whereas Proxima c's SI is 0.005, suggesting life is unlikely.
- Environmental conditions: Proxima b is considered potentially habitable, with

liquid water possible, whereas Proxima c is extremely cold (-234°C) and hostile to life.

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