

# Alien Life Might Be Purple In Colour And Not Green, Reveals Study

**According to the study, aliens might be residing on a planet like Earth, but they would not be as green as our planet. It might be completely different, hence, aliens might also be of different colours.**

[Science](#) Edited by [Bhavya Sukheja](#) Updated: April 19, 2024



Aliens might be purple as they would be covered in bacteria, per study. (Representative pic)

Alien life might be purple, a new research published in the journal *Monthly Notices of the Royal Astronomical Society* has found. According to the study, aliens might be residing on a planet like Earth, but they would not be as green as our planet. It might be completely different, hence, aliens might also be of different colours. Researchers believe that aliens might be purple as they would be covered in bacteria. They also assume that their planet might have little to no visible light.

The [new research](#) discovered the light signals which travel from worlds that lack sunlight and oxygen, like in many exoplanets found so far. Researchers explained that the dominant colour which gives a signal of life on Earth is green because of the plants and bacteria which transform sunlight into energy with the help of green chlorophyll. On the planet, which orbits around smaller and dimmer stars, the organisms are expected to survive if they run their metabolism on other infrared light. Notably, infrared-powered bacteria exist in different niches on Earth, especially where there is no penetration of sunlight like deep-sea hydrothermal vents or murky marshes.

So, for the study, astrobiologists at Cornell University grew various bacteria and measured the wavelengths of light which were reflected by them and simulated them with the kind of light signals seen in other worlds. They found that purple-coloured bacteria can survive by photosynthesis even in low light compared to plants. These bacteria use many forms of chlorophyll which helps convert light from the sun into food. This reaction results in not producing oxygen, which means the bacteria are not dependent on oxygen components, the researchers explained.

"We are just opening our eyes to these fascinating worlds around us. Purple bacteria can survive and thrive under such a variety of conditions that it is easy to imagine that on many different worlds, purple may just be the new green," said [Lisa Kaltenegger](#), director of the Carl Sagan Institute, in the Space Sciences Building.

"Our models show that depending on the surface coverage of the biota and the cloud coverage, a wide variety of terrestrial planets could show signs of purple bacteria surface biopigments," stated the researchers, in their paper.

"While it is unknown whether life - or purple bacteria - can evolve on other worlds, purple might just be the new green in the search for surface life," they added.