

## Weekend reading #3

**Water vapors discovered on a distant "super Earth" – adapted from <https://www.standard.co.uk/news/world/water-vapour-detected-on-distant-superearth-by-uk-scientists-in-world-first-discovery-a4234501.html> – 326 words**

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### **They will explore the planet with a new generation of telescopes**

**Scientists have discovered water vapor in the atmosphere of planet K2-18b, ie. super-Earth, which is the only planet outside the solar system known to be potentially viable.**

The planet is eight times heavier and twice the size of Earth and about 110 light-years away, or billions of miles, according to the latest issue of Nature Astronomy.

Astronomers at University College London (UCL) are delighted with their discovery. The discovery is the first successful atmospheric sensation for an exoplanet distant from its star at a distance that is suitable for life since there could be water in liquid form.

"The discovery of water at a potential for life to a suitable planet other than Earth is incredible," said lead author Angelos Tsiaras.

Although it is not possible to deduce from the discovery whether there is an ocean on the planet, they believe that there is a possibility.

Because the planet is too far away to send a probe, scientists are counting on a new generation of telescopes, which are expected to be able to determine, over the next 10 years, whether there are gases in the planet's atmosphere that could be produced by living organisms.

Tsiaras noted that the planet K2-18b is not a newer version of Earth because it is much heavier and has a different atmosphere. "But this nevertheless brings us closer to answering the fundamental question of whether the Earth is unique," he added.

Astronomers used archival footage from 2016 and 2017 taken by the Hubble Space Telescope for research. and developed algorithms to analyze the starlight filtered through the atmosphere of the observed planet. The results showed a trace of water vapor and the presence of hydrogen and helium in the planet's atmosphere.

K2-18b was discovered in 2015 and is one of the hundreds of "super-Earths" - planets with a weight between Earth and Neptune.