Water found on a potentially life-friendly alien planet

In a first for astronomers studying worlds beyond our solar system, data from the ***Hubble*** Space Telescope have revealed water vapor in the atmosphere of an Earth-size planet. Although this ***exoplanet*** orbits a star that is smaller than our sun, it falls within what's known as the star's habitable zone, the range of orbital distances where it would be warm enough for liquid water to exist on a planet's surface.

Hubble　哈勃　　exoplanet　系外行星

The discovery, announced this September in two independent studies, comes from years of observations of the exoplanet K2-18b, a super-Earth that's about 111 light-years from our solar system.

K2-18b's orbit takes it seven times closer to its star than Earth gets to the sun. But because it circles a type of dim red star known as an M dwarf, that orbit places it in the star's potentially life-friendly zone. Crude models predict that K2-18b's effective temperature falls somewhere between -100 and 116 degrees Fahrenheit, and if it is about as ***reflective*** as Earth, its ***equilibrium*** temperature would be roughly the same as our home planet's.

reflective　反射的　　equilibrium　平衡

The fact that researchers have detected water on this type of planet ***bolsters*** hope for finding habitable worlds beyond our solar system.

bolster　支持；增强

"This is the only planet right now that we know outside the solar system that has the correct temperature to support water, it has an atmosphere, and it has water in it — making this planet the best candidate for ***habitability*** that we know right now," Angelos Tsiaras, a University College London astronomer and a co-author of one of the two studies, said during a ***press conference***.

habitability　可居住　　press conference　新闻发布会