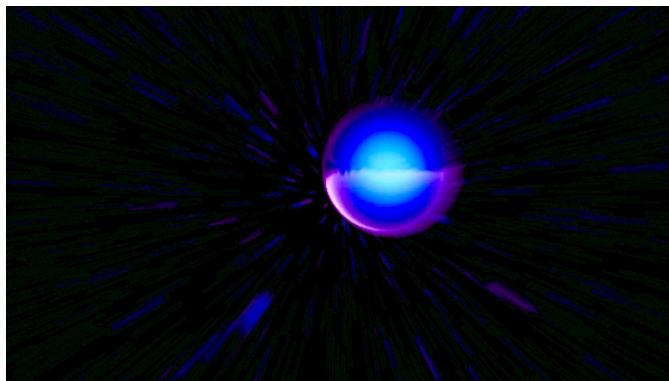


# ASTRONOMERS IMAGE LOWEST-MASS EXOPLANET AROUND A SUN-LIKE STAR (or do they?)

By Mitch Battros (From August 2013) - Comments by B. Davidson (June 5, 2015)

Using infrared data from the Subaru Telescope in Hawaii, an international team of astronomers has imaged a giant planet around the bright star GJ 504. Several times the mass of Jupiter and similar in size, the new world, dubbed GJ 504b, is the lowest-mass



planet ever detected around a star like the sun using direct imaging techniques.

“If we could travel to this giant planet, we would see a world still glowing from the heat of its formation with a color reminiscent of a dark cherry blossom, a dull magenta,” said Michael McElwain, a

member of the discovery team at NASA’s Goddard Space Flight Center in Greenbelt, Md. “Our near-infrared camera reveals that its color is much more blue than other imaged planets, which may indicate that its atmosphere has fewer clouds.”

GJ 504b orbits its star at nearly nine times the distance Jupiter orbits the sun, which poses a challenge to theoretical ideas of how giant planets form.

According to the most widely accepted picture, called the core-accretion model, Jupiter-like planets get their start in the gas-rich debris disk that surrounds a young star. A core produced by collisions among asteroids and comets provides a seed, and when

this core reaches sufficient mass, its gravitational pull rapidly attracts gas from the disk to form the planet. ~~

*Davidson: Why share this article? Especially when it is no longer the lowest mass planet, or special in any way compared to the hundreds of other confirmed exoplanets and exoplanet candidates. In fact, that is precisely the reason to post it. The Starwater series begins by looking back just to the late 1980s, and showing how scientists were just beginning to consider the possibility - at that time there were still many who laughed at question and saw no point in entertaining the idea. If you are reading this, you have access to the Starwater series on the Premium page of SuspiciousObservers.org; I was hoping that you could consider how long old ways of thinking persisted, how much changed between the late 1980s and the first episode of Starwater in August 2013, and then how much more things have changed since this article was published (also August 2013) until now. Things are not just changing, but the rate of change is changing. Just some food for thought.*