

# Stellar Metamorphosis: A Remnant Planetary Core in the Hot Neptunian Desert, or a Normal Ocean World?

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Abstract: Using stellar metamorphosis we can figure out what TOI-849b really is. Is it a remnant planetary core in the fictional hot Neptunian Desert, or a normal ocean world? It is up for the readers to decide. The main paper is archived here as proof: <http://archive.is/FOb17> and the interpretation by the media is here: <http://archive.is/hCX2l>.

TOI 849b is told to have a mass of ~40.8 times that of Earth, a density of ~5.5 grams per centimeter cubed, and a radius of ~3.45 times that of Earth. The astronomers are saying it is the densest planet of its size discovered so far. In stellar metamorphosis, this just means it is a very thick water ocean world on a high transformation curve. In other words, it is a remnant stellar core, as are all “planets/exoplanets”. Below is a screen shot of the media’s take on the issue.

**A dense, scorched planet around a faraway star may be the naked core of a gas giant.**

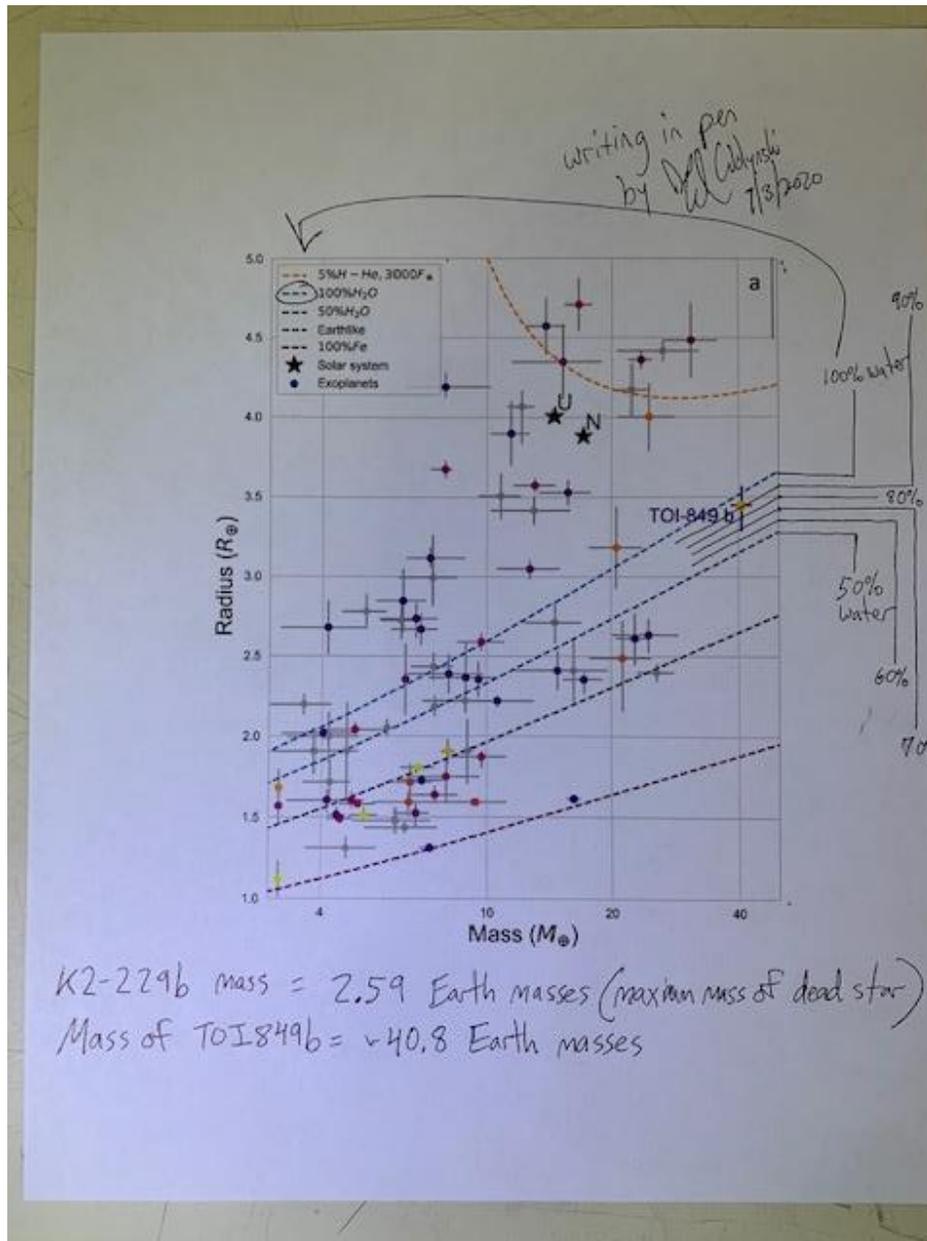
Satellite and Earth-based telescope observations show that the newly discovered exoplanet has a radius nearly 3.5 times Earth’s and a mass about 39 times as big. Those dimensions combined point to a density roughly the same as Earth’s, suggesting that the exoplanet is mostly rock. Unlike other massive planets, this world, called TOI 849b, has a barely there atmosphere, making up 4 percent of its mass at most, a new study suggests.

That atmosphere is “absolutely minuscule for a planet of its size,” says astronomer David Armstrong of the University of Warwick in Coventry, England. “This one is almost entirely an exposed rocky ball.”

The planet’s large mass and near lack of an atmosphere suggest that [TOI 849b may be the remnant core of a gas giant](#), Armstrong and colleagues report July 1 in *Nature*. It might be the first exposed gas giant core ever found.

First things first. Stars evolve into what are called “planets”. This means stellar evolution is planet formation. Naked cores of gas giants are evolving planets. There is nothing strange about this world at all. Mercury is the naked core of a gas giant (intermediate aged star), so is Venus, Mars, and literally every single rocky planet in all galaxies. That is what a gas giant is, after a star cools down and loses most of its mass from its stellar (luminous) stages, it becomes a gas giant, which then layers

material into its center forming the planet. Over time the atmosphere dissipates, exposing the newly formed planet. This is how all planets in the universe are formed, they are all formed by the process of stellar evolution (they are the same things), no surprise here! The astronomers are just looking at an intermediate staged star, the stage where the star is completely covered in a global, extremely thick, water ocean. In fact, the total amount of water/volatile material that will be removed on this world can be calculated and is even modeled by the very people who wrote the arxiv paper! The screen shot below matches up to this paper, where the maximum mass and density of a dead star is calculated found here: <https://vixra.org/pdf/1906.0572v2.pdf>

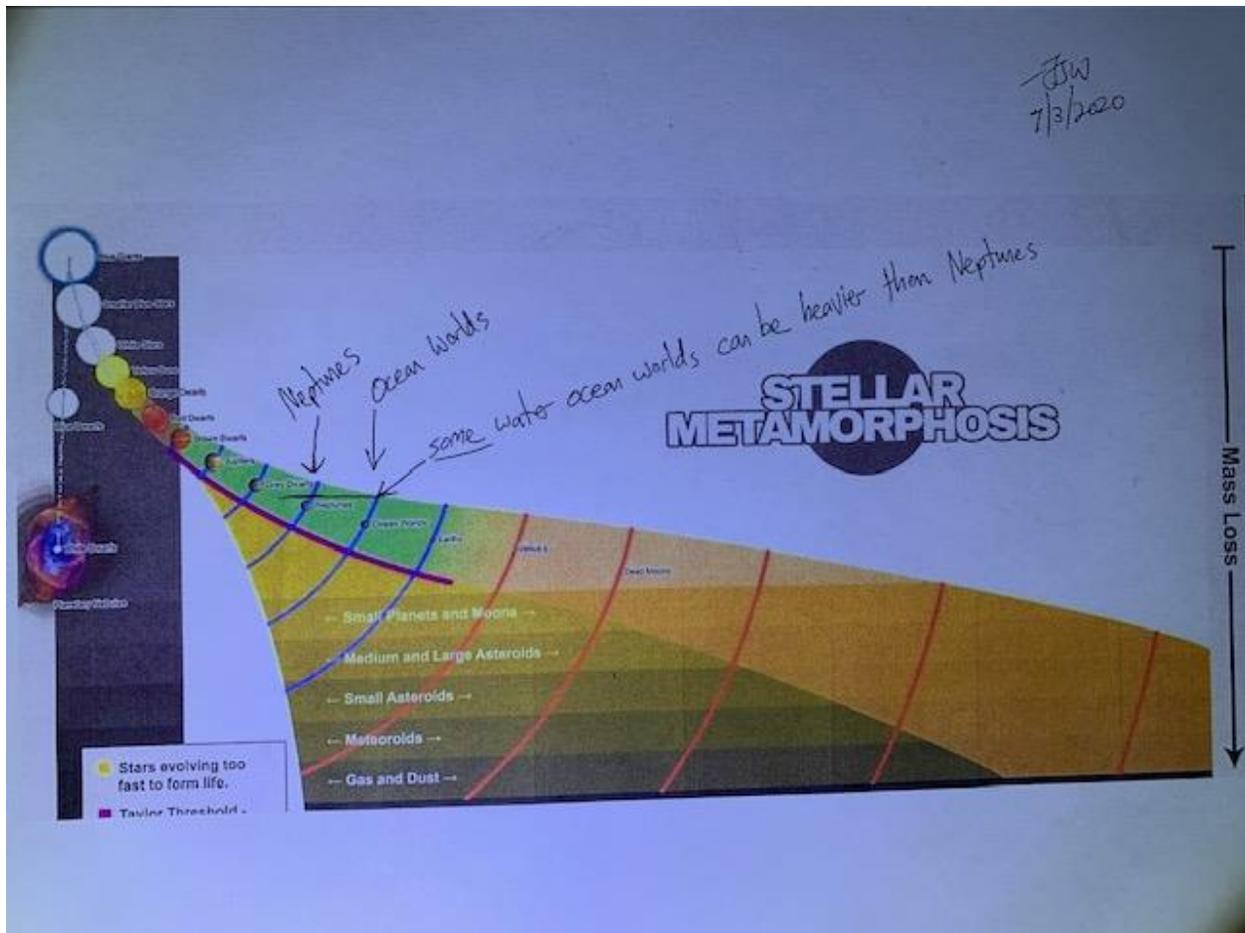


Mass of TOI 849b = 40.8 Earth masses <sup>1/3/2020</sup> - JFW  
K2-229b mass = 2.59 Earth masses  
(maximum mass of dead star)

$40.8 - 2.59 = 38.21$  Earth masses of material  
that will be lost as the  
star evolves

$\frac{38.21}{40.8} = .9365 = 93.65\%$  of the star's  
mass will be lost at the  
very least from this stage

Where does TOI 849b sit on the graph?  
At 92-94% water. How could there be a  
water world so huge? It sits on a upper level  
transformation curve. Given the measurements are  
correct, this world is going to become a very large  
Earth. It is a rare world for sure, but not  
inexplicable.



Stars on upper level transformation curves tend to be much larger per their stage of evolution. Here is the paper that explains what transformation curves are:

<https://pdfs.semanticscholar.org/b78c/ab1e6367074a870f03c756431cdfbb0c2127.pdf> or vixra:

<https://vixra.org/pdf/1905.0509v1.pdf>

It is really simple to understand. TOI-849b is just a large water ocean world. The hydrogen-bonds of the water are what have allowed it to maintain its extreme size. To determine the age of this mamma jamma I would like to see its total axial angular momentum and its D/H ratios.