

The Location of Titan on the Wolynski-Taylor Diagram, Version 2

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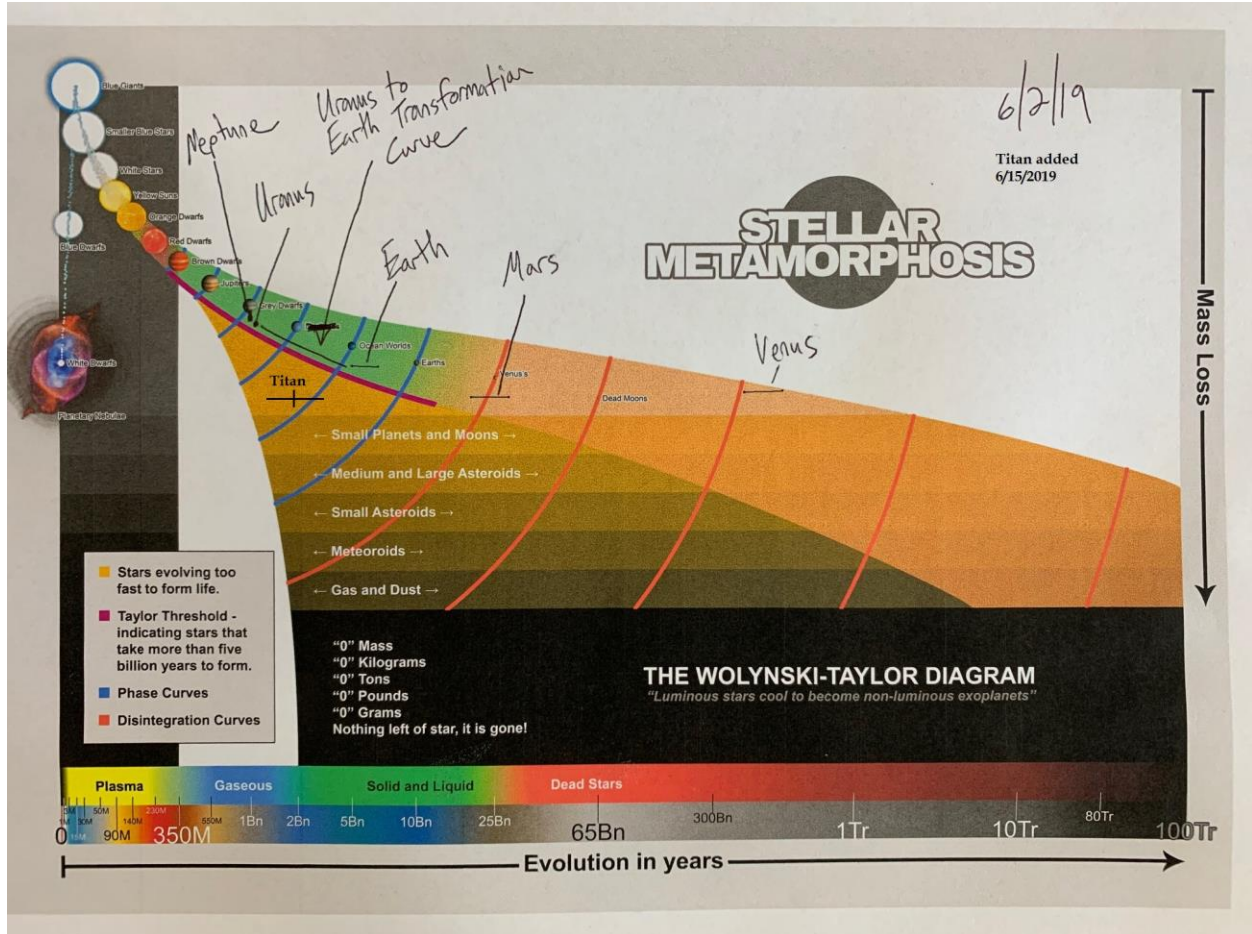
Abstract: One of Saturn's moons, Titan, is placed on the WT Diagram. Explanation of what we should expect from this placement is provided. It is calculated to be about 2.17-2.46 billion years old.

Titan has hydrocarbon lakes made of methane. This should not be possible, as to form large amounts of natural gas (methane), life needed to decompose according to the dogma. Since there is no life on Titan, and it also has huge amounts of natural gas right on the surface, then we can propose that it simply evolved too fast. In other words, it sits below the Taylor Threshold for life formation. There shouldn't be any life found on Titan. There might be chemical precursors as Titan is far below the threshold, but it did not have enough time, molecular mobility, gravitation and volume to form it. This is all considering that it also has a differentiated iron/nickel core, albeit small one given it evolved really fast due to being ripped apart earlier in its history from a hotter host. It might not even have an iron/nickel core at all, but as long as it has differentiation it is the core remains of an extremely old star. It would be fine for the core not to have iron/nickel, it just means the magnetic field would not have protected it as easily, so it would have further evolved too fast, anyways.

The atmosphere is also composed of 97% nitrogen. The rocks and minerals on the ground though are predicted to be similar to Earth's rocks and minerals, which have a high concentration of oxygen. What this means is that that the ultraviolet radiation of a hotter host ripped away the atmospheric oxygen long after the rocks/minerals had formed in the interior, which then left the nitrogen in the atmosphere. The nitrogen in the atmosphere has a higher bond dissociation energy, and is triple bonded, versus the oxygen gases' double bond. This means that the oxygen gas was broken up into atomic oxygen, which is much more energetic than diatomic oxygen, and subsequently escaped the atmosphere of Titan. So it essentially got knocked out of contention for ocean water world formation, as well as forming life. If you remove the oxygen, then no water can form in large amounts either. Though when the reader examines the diagram, they will see Titan peeks right over the ocean water world phase curve.

With the rocks being found on Titan, a level of differentiation, iron core or not, and the absence of an intrinsic magnetic field coupled with the very high percentage of nitrogen content, and hydrocarbon seas but no life, it can safely be concluded to have evolved really fast and not be as old as the Earth, but older than the object which hosts

it by at least 1 1/2 billion years, Saturn. This means Saturn captured Titan. The placement of Titan is on the next page, and is subject to revision.



As well, the dogmatic approach using assumption that no longer work still rules the establishment:

Evolution [\[edit \]](#)

The persistence of a dense atmosphere on Titan has been enigmatic as the atmospheres of the structurally similar [satellites of Jupiter](#), Ganymede and Callisto, are negligible. Although the disparity is still poorly understood, data from recent missions have provided basic constraints on the evolution of Titan's atmosphere.

As we can see, they phrase the evolution of Titan's atmosphere as being persistent (persistence) as opposed to the atmospheres of the structurally similar moons Ganymede and Callisto, which possess no appreciable atmosphere. Their atmospheres have already evaporated back into space. Not only that, but Callisto is probably impact remains, because it is not differentiated. It is probably best to not assume that Callisto, Ganymede and Io are even the

same age as Titan. They are completely independent objects. Not only that, but have their own transformation curves.

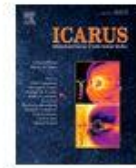
You will also notice that Titan is less massive than Mars, ~4.8 times less massive. This is because its thick gas giant atmosphere was ripped away rather quickly before it could build up a large iron/nickel core and combine lots of elements into rocks/minerals to be deposited and crystallized internally. This solidifies the reality that Titan evolved too quickly to form life, or a giant iron nickel core to make the star stable. Using its measured D/H ratios in its atmosphere, it has been recently found to be $2.17 \pm .633$ billion years old from ground based observations, or $2.46 + .914, - .633$ billion years old. These D/H ratios are referenced here:

<https://www.sciencedirect.com/science/article/abs/pii/S0019103502969307>



Icarus

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Regular Article

The D/H Ratio in Methane in Titan: Origin and History

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I do not include a screen shot of where it says the D/H ratio, but it is $7.75 \pm 2.25 \cdot 10^{-5}$, and $8.75 + 3.25, - 2.25 \cdot 10^{-5}$. I took this calculation from this paper here, where it was discovered that D/H ratios can be used to date material in an isotopically stable fashion, given the whole body experienced mass dependent fractionation.

This paper outlines how it was discovered that D/H ratios can be applied to the WT diagram: <http://vixra.org/pdf/1905.0091v1.pdf>

This paper sets the base 4.5 billion years old for Earth at 1D/6250H.

<http://vixra.org/pdf/1905.0369v2.pdf>

Titan is about twice as old as Uranus and Neptune. Tracing Uranus's transformation curve upwards towards its younger, more massive history, it is clear. Titan at one point was orbiting a star that is currently about their age now. Just subtract 1 billion years from Titan to

make it ~1.17-1.46 billion years old, and also move Uranus and Neptune up 1 billion years as well to ~153 million to ~230 million respectively. Uranus and Neptune paper here:

<http://vixra.org/pdf/1905.0411v1.pdf>

This is all in line with the principle of multiple evolving nebulas. Here:
<http://vixra.org/pdf/1606.0339v1.pdf>

"A star system/solar system is comprised of multiple evolving nebulas, some more evolved than others."

From these basic principles of astrophysics, we can determine that Titan, which has a certain youth as evidenced by its hydrocarbon lakes, small hydrous core, smaller mass and D/H ratio, that it probably orbited Neptune or Uranus at one point. Now, this isn't to say those objects are the only option, but given their current ages and Titan's age and locality, they were red and orange dwarfs respective when Titan was having its outer atmosphere ripped away. As well, Titan is far older than Saturn, the object it currently orbits, so this means Saturn captured it. Saturn and Titan are unrelated. Saturn is too young anyways to have been around to rip off Titan's thick gas giant envelope, it wasn't even in the picture yet when Titan was a gas giant. A billion years of time when Titan had its transformation curve abruptly moved down due to extreme mass loss, would completely swallow the time that Saturn existed for, at 590.6 ± 141 million years old.

This is interesting, because Titan currently orbits close in, and still has a thick nitrogen atmosphere, with hydrocarbon lakes. If it had orbited an orange or red dwarf Saturn, at the close distance it currently is, then those lakes and atmosphere would have been ripped apart already. It is much more likely that Titan was orbiting a star that is currently in a Neptunian or Uranian stage of evolution. This means some interplanetary re-arranging is in order. Titan's hydrous (water, hydroxide infused) interior is given an artists impression by NASA using Cassini data. You're looking at a star that evolved way too fast.

