

Stellar Metamorphosis: Using D/H Ratios of Neptune and Uranus to Determine their Ages

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Abstract: In the general theory stars evolve into what are called "planets/exoplanets". We can figure out how old they are by measuring their atmospheric deuterium/hydrogen ratios against the Earth. I have made this paper as simple as possible by starting with the Earth as between 4.5-10 billion years old, and with a D/H ratio of 1/6250. From that we can determine how old Neptune and Uranus are. It was previously predicted that Neptune and Uranus are 2 and 2.1 billion years old respectively via the General Theory, by using a simple graph.

"The resulting and remarkably similar D/H ratios for Uranus and Neptune are found to be $(4.4 \pm 0.4) \times 10^{-5}$ and $(4.1 \pm 0.4) \times 10^{-5}$ respectively."

<https://arxiv.org/abs/1301.5781>

The D/H ratios are remarkably similar to each other because they are similar in age. One being slightly older than the other.

This means Uranus is between $1.2375 \pm .1125$ billion years old given the Earth is 4.5 billion years old, and $2.75 \pm .25$ billion years old given the Earth is 10 billion years old.

So an absolute lower limit for Uranus is 1.125 billion years and an absolute top limit is 3 billion years.

It also means Neptune is between $1.1531 \pm .1125$ billion years old given the Earth is 4.5 billion years old, and $2.5625 \pm .25$ billion years old given the Earth is 10 billion years old.

So an absolute lower limit for Neptune is 1.0406 billion years and an absolute top limit is 2.8125 billion years.

This all depends on how old the Earth is, because that is what their D/H ratios are measured against.

I will figure out Jupiter, Saturn, and multiple other highly evolved stars soon, as well as the rocks/minerals that contain water. It can be determined how old rocks/minerals are now with their D/H ratios.

That being said, we now have another method to weigh against radioactive half-lives. In fact, we can also use the stable D/H ratios to check on the radio-isotope claims as well, to cross examine them, to make sure there is no funny business going on with initial radioactivity being skewed to fit pre-conceptions.

"Uranus has more methane by volumetric composition (2.3%) than Neptune (1.5 + - .5%) which means it has had more time to build up methane in the atmosphere. This is comparable to Jupiter and Saturn with ~ .3% volumetric composition. It is reasonably predicted that Uranus is therefore a tad bit older than Neptune, as well much older than Jupiter and Saturn, which fits Uranus right after Neptune on the graph, and well on its way to becoming an ocean world . Upon closer inspection of the graph the reader will see that Neptunes are about 2 billion years old. A Uranus would sit probably about 2.1 billion years old."

<http://vixra.org/pdf/1706.0194v1.pdf>

Uranus is a Star

June 14, 2017

This paper is always up for revision because it is still one of the first of its kind to reject Uranus and Neptune being 4.5 billion years old. In fact, they are younger than the Earth as predicted by the General Theory, and verified by the observed D/H ratios. More methods including seismic measurements of their core sizes will become available in the future when space travel becomes significantly less expensive and we decide to check those objects out again.