

# Stellar Metamorphosis: Does Gas Accretion Occur in the Vacuum to Form Gas Giants, K2-18b

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**Abstract:** It is pointed out that astronomers do not understand the principles of pressure and gas in the vacuum of outer space, nor do they understand planetary evolution. Some clarifying statements are made to fix the issue, and fully replace the outdated dogma. In short, astronomers claim that gas accretes onto a solid body "like a vacuum cleaner" to form a gas giant. An archive link and screen shot are provided to show how wrong this is, and a replacement theory is offered. The link is here: <http://archive.is/2xg6L>

To keep this paper very simple, the statement that shows astronomers do not understand what a vacuum is, how pressure behaves in vacuum, as well as how gas giants form is as follows:

## **The birth of K2-18 b?**

Benneke suggests that, possibly, this planet formed by rock accreting immense amounts of gas, "like a vacuum cleaner," he said. This gas accretion would have more than doubled the planet's radius and increased its volume eightfold. (Today, for comparison, K2-18 b is about nine times as massive as Earth and about twice as large.)

To come to these conclusions, the research team analyzed data from Hubble Space Telescope observations that they made between 2016 and 2017 of the K2-18 b planet passing in front of its star eight times. This technique allows scientists to detect distinct signatures of molecules like water in a planet's atmosphere.

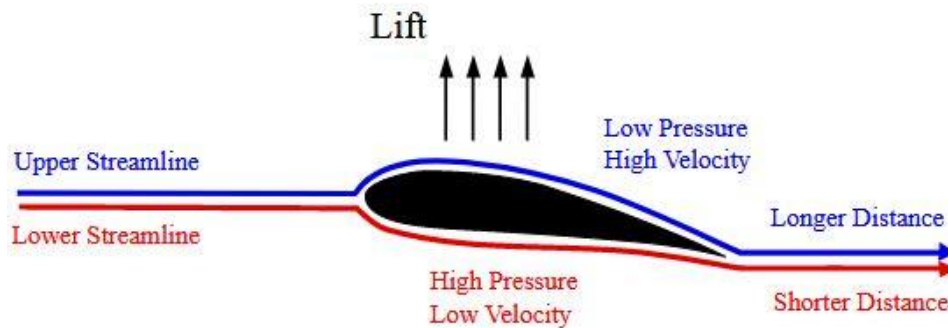
This team plans to expand this research even further by studying K2-18 b with NASA's [James Webb Space Telescope](#), which is set to launch in 2021.

A vacuum cleaner works by inducing a partial vacuum internally which causes a higher pressure to form outside of the vacuum. This higher pressure air then flows to the lower pressure area through the vacuum hose. This is how vacuums can pull material up and out of carpet and various places. This means that the claim of a rocky object pulling in gas from outer space "like a vacuum cleaner" to form a gas

giant is wrong. The vacuum is already outside of the rocky object, it is called interstellar space and is a hard vacuum. Any gas present would not accrete to a rocky body like a vacuum, because the higher pressure is near the surface of the rocky body! Gas moves towards lower pressure in a vacuum, but the astronomers claim exactly the opposite. They say the gas moves towards the higher pressure, to accrete and form a gas giant! This means their claim of a rocky object being able to pull in gas from interstellar space to make a gas giant directly contradicts basic understanding of how gas behaves and how vacuums work!

In order for their claim for a rocky object to suck in gas from interstellar space to form a gas giant to work, they need the gas in outer space to be a higher pressure, and the surface of the rocky object to be a lower pressure. Yet, all the direct observational evidence of both stars (and evolving stars mislabeled planets), has the pressure higher near the surface than its environment, which is the vacuum of outer space. There has been no observational evidence of a rocky object in outer space possessing a lower atmospheric pressure than its own environment. So the analogy provided by the astronomers directly contradicts both basic understanding of how vacuum cleaners work, but all observational evidence of the atmospheres of all rocky celestial bodies inside of their environment.

So the reader can get their monies worth, it also means astronomers probably do not understand the concept of lift in airplane airfoils. The lower pressure air (faster moving) is on top of the airfoil, and the slower, higher pressure air is on the bottom, causing the wing to "lift" upwards. The difference in air pressure is what causes the lift effect.



I think where they went wrong is that they assume a rocky object has enough gravitation to pull in material (gaseous material) from outer space. This is wrong though, gas expands to fill the container, not just take the shape of the container. There is no reason for any free floating gas to accrete onto a rocky object, especially when it naturally wants to fill the container encompassing it, which is the cold, dark, total and vast vacuum of outer space. So not only do they have gas accreting against the pressure gradient observed in all Jupiter sized/Earth sized objects, they ignore the fact that gas takes up the volume of the container not just the shape.

All of this talk of not being able to form gas giants in outer space is not to say it cannot be done, on the contrary. All I am saying is that it cannot be done in the way astronomers claim it is.

Gas dissipates naturally from stars as they evolve, according to the gas laws, and in accordance with the General Theory. Gas naturally wants to go from an area of higher pressure to an area of lower pressure. Gas wants to go from a higher pressure atmosphere to the hard vacuum, high to low just like a vacuum cleaner. This is why gas giants dissipate. What this does is have a domino effect during stellar evolution. When gas dissipates from a gas giant from its higher pressures to the lower pressures of interstellar space, the giant loses mass, albeit slowly. This in turn loosens up the strength of its gravitational field, and more gas can escape, leading to more mass loss. So essentially the astronomers have it backwards. The rocky object does not accrete gas to become a gas giant, what really happens is that the giant loses gas to eventually expose its rocky interior (that formed over many hundreds of millions of years). What this means is that the Earth is the ancient interior of an extremely evolved gas giant, and we are walking its surface, breathing in its atmosphere.

So to correct the astronomers, it is the rocky objects that form like a vacuum cleaner. Interstellar space sucks up the gas that the gravitational field of the gas giant cannot hold onto any longer, and eventually exposes its rocky surface over very long periods of time. This is what happened to both Mercury and the Moon. Their gaseous atmospheres were removed long ago. As to Venus and Mars, Mars' gravitational field is much weaker than Venus, so it has lost proportionally more of its CO<sub>2</sub> atmosphere than Venus, regardless if Venus is at least 11-30 times older, Mars at 25-40 billion years old, Venus at 450 to 750 billion years old. It is also what will happen to Jupiter, Saturn, Neptune and Uranus. All four objects are losing their gaseous envelopes and shrinking, losing mass and heat energy, as they form their rocky interiors (new Earths). Eventually, many hundreds of millions of years down the road, those objects will take up Earth's appearance, with a very thin atmosphere and life, water oceans, mountains and the whole deal, more than likely.

Then you can have your Instagramers taking pictures standing on cliff edges, and BASE jumpers and wing suit flyers cruising mountain sides. What they are witnessing and enjoying is the extremely evolved interior of what was once a gas giant, and itself was once a very large, hot, bright star. It is incredible, the Earth, far beyond what astronomers currently accept and/or understand. It took an extremely long time to form the Earth, an extremely long time. It is time we take the next step in our understanding of nature. On the next page is a graph showing the evolutionary line for stars, which directly refutes and replaces the dogma. Just email me if you need a bigger version for presentation.

# STELLAR METAMORPHOSIS

