Helium Production in Stellar Metamorphosis, or Where Did Earth's Helium Come From?

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Abstract: It is taught and accepted by the establishment's dogma that most of the helium on Earth is produced by radioactive decay. This is false. Most of the helium on Earth was simply trapped during crust formation during later stages of stellar evolution. This is why it is found and extracted mostly from natural gas deposits, and not uranium mines.

The dogma's stance is that the majority of helium is produced by radioactive decay. Cut and pasted from Wikipedia:

Most helium on Earth is a result of radioactive decay.

The truth is that most helium on Earth was always on Earth. Most helium is in fixed supply, and the additional helium is created by radioactive decay, so the two processes are not the same. The principle of diminishing solar abundances or the solar abundance principle of stellar evolution states:

"As stars evolve into rocky differentiated worlds, the ratio of lighter elements to heavy elements diminishes considerably."

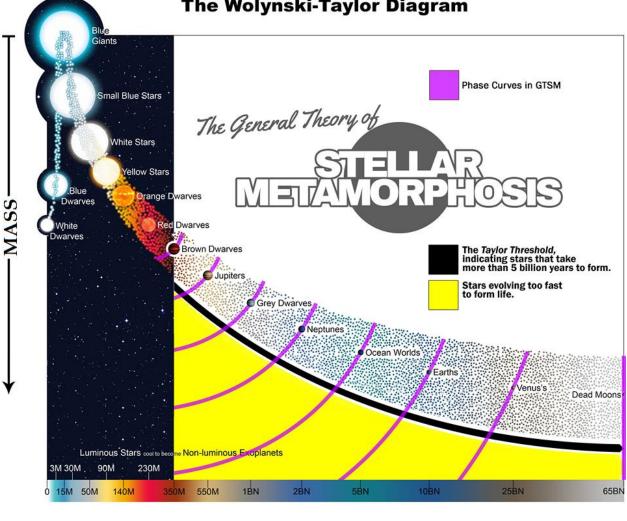
This means the abundances of lighter elements diminishes considerably as the star evolves, leaving the heavy elements and those which have combined into stable heavier molecules behind. Since most helium on Earth is extracted from natural gas deposits, it stands to reason helium was extremely solute, as opposed to the hydrogen bonding to carbon when the methane and other hydrocarbons were falling into the deep atmosphere of the star. It was then trapped as the crust began forming much further into the star's evolution, and stayed put. Nuclear decay (alpha decay) can produce helium in large amounts, but since the actual locations helium is mined from involve natural gas, it stands to reason when the natural gas was forming, it was also mixing with the helium. Since this occurred at higher temperatures and pressures it allowed for the helium to sink and not rise up out of the atmosphere and dissipate back into outer space. The temperatures and pressures with which this occurred are far above STP (standard temperature and pressure). This means that when the natural gas is extracted in drilling processes, the helium that was mixed with the methane and other hydrocarbons is released, as the original pressures and temperatures are lowered significantly and is being removed out of the ground. Since it is a noble gas, and removed out of the ground in its monatomic state, it will have appeared to not have been mixed, chemically bonded or dissolved with any of the other molecules, though it could have been. Evidence for helium's former dissolved, chemically bonded or mixed state is removed as pressures are removed and the past extreme heat is no longer available. It is like catching a deep sea creature that lives in a high water pressure environment, and expecting to observe it alive in much lower pressures. Helium's chemical and physical environment was different than what it is now.

It is much better to look at Earth as the remains of an object that was vastly larger and more

energetic, in order to make sense of simple questions such as where does helium come from. This is the most reasonable conclusion as the vast majority of objects observed in the galaxy are vastly larger and more energetic. Instead astronomers, geologists, physicists and chemists have assumed wrongly, and ignored astronomical observations to force fit facts together without critical analysis of assumptions. If helium was mostly a product of radioactive decay processes and can be trapped by rocks underneath the surface, why is it concentrated in natural gas deposits? Why wouldn't the majority of the helium be mined out of uranium ore deposits? It is because the vast majority of helium was always here, and is not a result of radioactive decay processes. It is a stable element that does not decay, and is left over from much earlier stages of stellar evolution, when the Earth was brighter and bigger than the Sun. The helium produced now is mostly from nuclear decay, but the majority of helium currently mined is in fixed supply due to this fact.

Of course many stages of evolution have occurred separating the two apparent objects, the Sun's state now and Earth's current state of evolution, but let us be honest here. Did scientists ever consider they were wrong concerning their assumptions of Earth's history? No. They have Earth as always having been the size it is now, so all the processes involved with explaining how specific elements came to be are painted with those assumptions. The dogma is formed, and to hell with all the critical eyes!

For those who don't know, Earth is near the ending stages of many hundreds of millions of years of a star's evolution. We are standing on what the Sun will probably become.



Duration in years

The Wolynski-Taylor Diagram