Carbon Stars

Jeffrey J. Wolynski Jeffrey.wolynski@yahoo.com May 24, 2020 Rockledge, FL 32922

Abstract: In astronomy, carbon stars are stars which have more carbon than oxygen in their atmospheres. This is measured in spectroscopic surveys. It is also inadequate for 21st century astrophysics. It is more fitting to remove the designation of "carbon star" as being some specific type of star, and to understand that carbon increases in abundance as the star evolves, as measured against helium.

In the general theory, stars create life as they evolve. This life is composed of vastly complex arrangements involving carbon. In the Sun, carbon is the fourth most abundant element by mass, after oxygen, helium and hydrogen. What the mainstream does is muddy the waters. When something like the Sun has such an enormous amount of carbon, yet it is not labeled "carbon star", it does a disservice to astrophysics and astrochemistry. As we know via the general theory, carbon will increase in abundance by mass as opposed to helium as the star evolves. The element that carbon should be compared to as it evolves is helium, not oxygen, as that is the element the star loses the most of as it evolves and creates the molecules life will form out of further into its metamorphosis.

What I mean to say as well is that classification of stars that have more carbon than oxygen in their atmospheres is pigeonholing astrophysics. It removes the researcher's mind from realizing the more important element to measure the carbon against, is the element that the star loses the most of as it evolves, helium. What would make more sense is to label a star that has more carbon than any other element as a "carbon star".

Earth has lots of carbon on its surface in the form of biomass. The jungles, forests, animals and sea life contain lots of carbon. As well, limestone and marble are composed of carbon, and those two rocks are in abundances all over Earth's crust. This carbon that is combined with other elements in the Earth and on its surface is the remains of a single star's carbon. This means the vast majority of the mass of carbon that any star has, is lost in much higher proportions than the heavier elements, due to long term mass fractionation. As well, the lightness and inability of other elements to combine and make stable molecules such as helium are lost in even higher proportions. It is in such low proportions that it is not even listed on wikipedia's page for Earth's crustal elemental abundances!

https://en.wikipedia.org/wiki/Abundance_of_elements_in_Earth%27s_crust

Why is there more carbon than helium on the Earth? Well, helium is a noble gas, so it is hard pressed to chemically combine with other elements, plus it is extremely light. It is no wonder most primordial helium has escaped Earth. What is more useful to determine how old a star is, is by measuring the helium content as opposed to carbon. The youngest stars will have far more helium than carbon, and the older a star gets the more helium will be lost as opposed to carbon.

Helium can be found with hydrogen and carbon (hydrocarbons) though in the natural gas deposits that are mined. It is mixed in, this is because natural gas is formed in earlier stages of Earth's metamorphosis, and the helium in the atmosphere is mixed in and compressed as the Earth ages. Unless the helium can be mixed in with the natural gas and get trapped by the newly developing crust, then it won't be present at all in highly evolved stars. For those new to this

theory, it has been discovered that planets are ancient stars. Here is a graph. You will notice that spectroscopic surveys that classify "carbon stars" are still luminous, and belong towards the more energetic youthful upper left hand portion of this graph. The old stars belong towards the lower right, where carbon increases in abundance as opposed to helium. You will also notice, there are no "carbon star" pigeonholing justifications. It is a smooth transition. https://vixra.org/pdf/1905.0594v1.pdf

