## Some Notes on the Liquid Metallic Hydrogen Solar Model in Reference to Stellar Metamorphosis

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Abstract: Some notes are referenced to put together a much more cohesive picture of stellar evolution using a few ideas presented by Pierre-Marie Robitaille in his Liquid Metallic Hydrogen Solar Model as compared to Stellar Metamorphosis.

A video was watched found here: <u>https://www.youtube.com/watch?v=FDn\_0hwLsKM</u> The argument for the LMHSM model was proposed in the video. A few notes in easy to read form are made below.

- 1. At 33:14, "Unlike nuclear reactions which are unknown to us, we can observe the light emitted by the stars."
- 2. At 57:10, "the simplest was of accounting for the reduced luminosity of white dwarfs, is to invoke a simple change in lattice structure (hexagonal planar on the main sequence to fcc or bcc or other for white dwarfs).
- 3. At 12:49, "It (the Sun) can make none of the heavier elements (other than helium). This is vital to preserving our current understanding of stellar evolution as the primary driving force for changing stars types is currently the switching of nuclear reactions."
- 4. At 12:49, "If the Sun can make all the elements, then what causes the stars to be different from one another fi not driven by differing nuclear reactions?"
- 1. This needs to be corrected as it uses false assumptions that are never mentioned in the video. That assumption is that all stars shine. To properly understand the stars, it should be stated, "Unlike nuclear reactions which are unknown to us, we can observe the light emitted by younger stars," or stated differently, "Unlike nuclear reactions which are unknown to us, we cannot observe the light emitted by older stars."

The reason why this is very, very important and one of the major assumptions that needs to be corrected is because it is an unspoken, unrecognized assumption that completely destroys our ability to accurately determine the compositions and dynamics of stars as they evolve. Before designing theories, models and ideas concerning stellar evolution, you absolutely have to know what evolved stars look like. Without knowing what highly evolved stars look like, trying to determine what happens to younger stars is all conjecture based on incomplete observation. Not only that, but scientists have to realize that it is actually NOT incomplete observation that they are suffering from. It is not their abilities and lack of observation which is preventing them from determining the futures of stars, it is their assumptions. They assume that all stars shine and are massive! This of course violates the conservation of mass and energy. Simply put, if a star loses mass and does not replace that mass it will become less massive, and, if a star loses energy and does not replace that energy, it will become less energetic. The two most fundamental laws of physics are ignored by astronomers. If they would just look at the most fundamental laws of physics and examine their assumptions they would realize that stars lose the majority of their mass and energy as they evolve. Continuing to call them "planets/exoplanets" just continues to make matters worse. Not only that, but they can all be placed on a single graph according to their stage of evolution.



A mass/luminosity/age relationship is there, but is only applicable where the star is luminous, and not significantly impacted by other objects to certain degrees. This leads to the next point for #2.

2. White dwarfs are very young stars. Something about their radiative characteristics changes as they are definitely NOT Earth sized as mentioned by Robitaille. In line with the Lattice idea presented by Robitaille, the actual lattice changes because the star DOES expand outwards greatly. This causes significant cooling all the way up to giant phases, and the condensed matter of the white dwarf expands creating a shell completely encapsulating the star's interior (which is not nuclear but probably a homogeneous gas/plasmatic material). Of course this is up to further refinement. It also

should be noted that any Lattice type configuration of material is lost eventually, as stars' lose their ability to shine due to heat being internalized greatly due to infalling matter creating the new core (the planet) in its interior. Regardless of Robitaille's opinion on this matter, we should be able to reverse engineer older gaseous stars to draw up more accurate representations of stars in intermediate stages of evolution between Jupiter and the Sun. It should be clear that Jupiter is NOT a failed star, but an intermediate aged one, as well the Sun is not an ancient star like Earth, but a really young one that has properties of youth, such as incredible mass and outward oriented heat production due to slow gravitational collapse. It also should be apparent that stars do gravitationally collapse, this energy fuels a variety of electrochemical, thermochemical and photochemical reactions inside the star forming things like life and rocks/minerals (land), oceans, etc.

3. All element production happens in AGN's or Active Galactic Nuclei and radio active galaxies. No star synthesizes elements in fusion reactions, they are not energetic enough. As well, in stellar metamorphosis fusion is not a closed system, it is open, and observed in radio jets coming from birthing galaxies. The fusion ideas were falsely placed in stars, simply because radio astronomy was not available yet to place these extremely energetic reactions where they belong, in birthing galaxies, which are producing billions of stars. Hercules A is pictured below and is the source of matter creation. The material that billions of stars will form out of is observed in huge lobes.



4. Stars are different from each other because they lose energy and mass as they evolve and are the locations of the majority of chemical reactions in the universe (non-nuclear).