The Aqueous Geochemistry Principle

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Abstract: The stages of the evolution of a star include aqueous material, and this aqueous material facilitates the chemical reactions that occur as the star evolves, cools and dies becoming the remnant or “planet/exoplanet” used in popular circles. This paper outlines a simple fact of geochemistry.

In stellar metamorphosis, there are stages to a star’s evolution where it is composed heavily of aqueous solutions, mixtures and the like. These solutions and mixtures change as the star continues cooling and evolving, forming the planet in its interior, or “stellar remnant”. The actual nomenclature of the object is irrelevant just as long as the scientist or researcher realizes they are the same, in that a “planet” is nothing but an ancient/evolving star. This being said, it should be no question why basalts and granites are composed of water alongside their less aqueous counterparts, they formed inside of aqueous watery solutions when Earth was a thick ocean world. The water just stayed put inside the granite and basalt as they crystallized deep in the interior of the ocean world Earth. They are essentially precipitates as outlined in this paper, the Cementation Principle of Stellar Evolution.


The Earth's ocean world/water planet stages occurred over much longer periods of time than are accepted by the dogma, as land life is essentially a new phenomenon. The time that the Earth was completely encompassed by water and chemicals in various mixtures is much greater than what is predicted by the dogma. Not only that, but it is a magnitude greater in timescale than the early stages that the star evolved in during luminous stages such as white dwarf to late red dwarf.
Above is the timeline for the first stages of a star’s evolutionary sequence when it is hot, big and bright. Most stars will cool down and stop radiating brightly about ~500 million years into their evolution.

Picture Credit: Barrington J. Taylor
In the above picture it is apparent that the majority of the time that Earth has evolved, it was a deep ocean world. Life only came full blast many billions of years into ocean world stages. Snowball Earths would have included the surface of the thick ocean completely solidifying into a thick ice crust (changing host stars that could keep the water liquid on the surface), that would completely encapsulate the thick oceans. That would not be a problem for life though, as the water interior would still be liquid due to the massive amounts of heat coming out of the interior of the Earth.
This principle completely encompasses the ideas outlined in the Wikipedia page concerning hydrocarbons, rare earth elements and research into radioactive waste. Just including watersheds does not give even a fraction of the larger picture. The entire Earth was mostly liquid material and was even completely encompassed by a single deep ocean for the majority of its evolution. This is what happens to the majority of evolving stars towards the end of their lives. As well, we absolutely have to realize that it is not a matter of if a star leaves a large percentage of hydrogen combining with oxygen forming oceans, but where these objects are in the galaxy, what stage of evolution they are in, and if they had enough time to evolve and were not ripped apart before the oceans could form. The formation of all the surface and deep lithospheric structures of the Earth and forming planets (evolving stars) include this principle,

“The observations of geological processes which occurred on the Earth and all evolved stars demands that the majority of the chemical reactions were once liquid (aqueous) solutions.”

This principle means that the less evolved stars than Earth will be composed of liquid solutions, after gaseous stages of evolution, as is outlined by this simple graph shown below. Before the star can completely solidify, it had to have been liquid material, as that is the intermediate phase between gaseous and solid material. Of course some material would skip that step inside of deposition (gas to solid) reactions (in the iron/nickel core deposition processes), but the majority of it would not. This paper is just a simple review and introduction to the main principles of stellar evolution (planet formation). All the exoplanets found to date can fit on the graph below.