The Iron/Nickel Cores of Ancient Stars as Leftover Catalyst

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Abstract: It is explained that the iron/nickel cores of ancient stars are composed of unconsumed catalyst used in the chemical reactions required to form many chemical compounds found on rocky highly evolved stars. As well, it explains why only specific elements are found with the iron/nickel composites, it is because they are also function as catalysts, such as platinum, copper and gallium, which can be unconsumed in the process.

Iron/nickel meteorites are pieces of the core remains of long dead, smashed up astrons (young astrons are stars, old ones are planets). They are mostly the heavy metals iron and nickel, but also contain trace amounts of platinum, copper, rhenium, osmium, iridium and others that can resist being consumed in chemical reactions. Of course some more resistant to being consumed than others. Given astrons are the location for the vast majority of chemical reactions in the universe, I am proposing that the chemical reactions are helped along by catalysts. These catalytic materials, iron and nickel mostly, enter the young astron (star) and spur synthesis and decomposition of various chemicals on huge scales. The left over catalytic iron/nickel then sinks into the interior due to not being consumed, thus forming the cores. This means large cores of ancient astrons are indicative of large amounts of chemical processes having occurred in the astron's past, as they are unconsumed and in vast quantities. This also means the densities of the oldest astrons plays a part in whether they have large iron cores, and lots of rocky material. If the density of the planet is high, say about 5 gm/cm^3, then the chances of it having a large iron core are high. Since the iron core shows direct evidence of past chemical reactions having taken place in huge amounts, then we can also expect the rocky material that planet to be made out of to be just as complex as Earth's.

The other elements that do not function as good elemental catalysts such as fluorine, oxygen and nitrogen should be expected to be almost non-existent in pure iron/nickel meteorites, as they would have been consumed well before any in-falling of material could occur. The only way for oxygen or other non-catalytic elemental material to fall inwards during planet formation would be if it is combined with other heavier material, and become mostly unreactive, such as silicon dioxide or olivine. Even then, the heats and pressure involved in internal deposition processes (planet formation inside the star), would possibly break apart any newly formed silicon dioxide or magnesium/iron silicates. They would remain towards the border of the collected

unconsumed iron/nickel catalyst, thus forming the boundary between the inner and outer cores, and in many places mixing forming beautiful pallasites.

Pallasite forms the boundary between the inner pure iron/nickel regions of the cores of dead stars where the collection of unconsumed iron/nickel catalyst took place and the outer core layers.