

Accretion Friction Braking in Stellar Metamorphosis

Jeffrey J. Wolynski
Jeffrey.wolynski@yahoo.com
April 11, 2016
Cocoa, FL 32922

Abstract: It is required in stellar metamorphosis to brake material so that it loses the momentum that would prevent coalescence. In order to do any sort of accretion in outer space, the material has to clump together slowly and be pulled together and heated significantly. Even the slightest momentum with gaseous matter, dust, 1 cm sized particles or 1 km sized asteroids would prevent accretion and result in a further disintegration or deflection of the material. Explanation is provided.

Two rocky asteroids the size of school buses travelling at an extremely slow velocity of 25 M.P.H. relative to each other colliding would result in an explosive event on par with a couple pounds of TNT. Two school bus sized asteroids slamming into each other, (which is establishment's version of planet formation) travelling at even the relatively slow orbital velocity of Neptune would yield an explosive event with the destructive force of many tons of TNT. Both velocities would completely prevent anything larger forming among the two objects, which leads us to the question, how exactly do rocks clump together in outer space? The answer is that they do not. You do not build planets in outer space by slamming rocks together at any appreciable velocity, because they will bounce off each other like billiard balls or obliterate each other like artillery shells.

Since planets are not formed by rocks slamming into each other at any appreciable velocity, how exactly do we end up with giant differentiated metal/rocky objects the size of the Moon or Mercury? Surely they are comprised of rocky material, so the rocks and metal got there somehow! The answer is quite simple. Since planets are not formed by rocks slamming into each other in outer space, there has to be a way for rocks to lose their momentum so that they can reach the same spot in outer space, as well, that momentum also has to be somehow transferred to heat so that the rocks can melt and clump together with other rocks making larger, completely solid, homogeneous objects. To slow any size rock down so that accretion can happen, you can slow it down with friction. Where are the places in the galaxy that giant 1 km sized asteroids can be slowed down with friction? It is clearly NOT other 1 km sized asteroids, they are too small, they would zoom right past each other because outer space is too large of a place for collisions of that type to happen in any appreciable amount. The place for friction braking of the asteroid is in young and intermediate aged stars. There we will find that the star has enough inertia to prevent any object from pushing it around, meaning that all the momentum of the asteroid will be completely absorbed once it hits the star's atmosphere. The enormous friction braking will heat up the asteroid, subsequently melting, vaporizing and even ionizing large portions of it so it then can be sorted out and differentiated into the central regions of the star. As well will spur enormous amounts of chemical reactions, but that is for another series of explanations.

Placing the star as the location for planetary accretion solves multiple issues. The star can absorb the momentum of the asteroid with friction braking, melt/vaporize/ionize the asteroid completely, sort the material based on mass and other properties in the internal

regions, prevent heavy material from escaping (core formation via physical vapor deposition), and even clump all size asteroids from vaporized iron particles all the way to Ceres sized behemoths. Not only that, but it can do this to trillions of these rocks because the gravitational field of the star can grab significant amounts of interstellar shrapnel, as well the star has an extremely large surface area compared to a plithy asteroid. A very large surface area and gravitational field significantly increases the statistical probably of collisions.

What this all means dear reader is that the location for planet formation is inside of stars. Those bright objects you see in the night sky are not nuclear furnaces, they are planet ovens. The Discovery Channel, National Geographic magazines, Scientific American articles, documentaries about big name astronomers and astrophysicists are all wrong when it comes to stars. The only thing cooking in a star is a planet. Matter synthesis happens in active galaxies or AGNs, events which actually have the energy required to fuse matter at high velocities, and in gargantuan quantities. We should demote the stars from nuclear furnaces, and promote planets to being ancient stars. This simple realization is required that way we can do good science and not rely on outdated theory which struggles to explain even the high school basics, such as explaining how to make rocks lose their momentum in outer space by having them hit other objects with vastly larger masses and how useful simple concepts such as friction are. Let us get back to the basics.