The Reason Why Magmas are Mostly Silicon and Not Iron

Jeffrey J Wolynski

October 18, 2012

Jeffrey.wolynski@yahoo.com

Abstract: It is hypothesized why Earth magmas are mostly silicon and not mostly iron.

During red dwarf stages of stellar metamorphosis the iron that a star contains starts collecting in the middle from large electric current magnetizing it. Electric current flowing through silicon does not make it magnetic, because it is diamagnetic. [1] So in essence most of the iron will collect in the center as a molten ball that will eventually cool and crystallize over time because of iron's ferromagnetism. [2] This will leave much less iron in the upper mantles of the Earth and the crust as opposed to the core which is hypothesized to be a solid iron/nickel composite similar to meteorites.

References

[1] Magnetic susceptibility of the elements and inorganic compounds, in Lide, D. R., ed. (2005). *CRC Handbook of Chemistry and Physics* (86th ed.). Boca Raton (FL): CRC Press.

[2] Chikazumi, Sōshin (2009). *Physics of ferromagnetism*. English edition prepared with the assistance of C.D. Graham, Jr (2nd ed.). Page 118. Oxford: Oxford University Press.