

The Reason Why Magmas are Mostly Silicon and Not Iron

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

During red dwarf stages of evolution the majority of the iron collected by the star deposits into the interior of the star. It is not known which process holds precedence during the building of a core but a few suggestions are provided.

1. Electro-deposition (electroplating, the metal is attracted to itself inside of a solution of iron/nickel ions inside the star.)
2. Physical vapor deposition (vacuum allowing for material to sort based off its ionization energies, has a higher ionization energy than silicon)
3. Its weight (iron is heavier than silicon)
4. It is ferromagnetic (can be magnetized, and becomes magnetic inside of an electric field, silicon does not)

This is why the magmas are not comprised of iron. The majority of the iron has already cooled and deposited on the interior of the star.