CREATING LIFE FROM INANIMATE MATERIALS

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Any substance placed under pressure, if enough usable energy is available, will "attempt to find" a more compact form to relieve the pressure. That is, nature abhors pressure. For example, heat energy and pressure is used to force pure carbon to assume the more compact diamond form. Analogously, since in most cases a complex molecule is more compact than are its constituent parts taken as a whole, pressure is a very good way to assemble more complex molecules from less complex molecules.

Do not try this at home! The life you create could be dangerous to previously created life!

The Recipe

(1.) Fill a container with hydrogen, water, methane, and ammonia, and then seal the container. Drastically, reduce the volume of the container while adding energy. Or, run electrical sparks through the contents creating areas of increased pressure and heat. This second method was used by Stanley Miller in 1953. Either method will cook up amino acids. Make several batches using varying pressures to get a wider range of amino acids.

(2.) Place the resultants of step one into another sealed container. Drastically, reduce the volume of the container while adding energy. Or, use a high impact method to drastically reduce the volume of the container and to produce usable heat energy. This second method was used by Jennifer Blank in 2002. Either method will cook up peptides. Make several batches using varying pressures to get a wider range of peptides and/or proteins.

(3.) Repeat step (2) using the resultants of steps (1) and (2). This will cook up proteins.

(4.) Repeat step (3), as many times as necessary until life forms, using the resultants of steps (1), (2), and (3).

Note that the above recipe for creating more and more complex molecules is analogous to that for creating the heavy elements; i.e., succeeding generations of stars use the resultants from previous generations, and core pressure, to create heavier and heavier elements.

Apparently, neither of those two experimenters considered pressure as a means of assembling more complex molecules. Stanley Miller thought that the energy from the electric current, rather than the generated pressure, did the deed; Jennifer Blank thought that the impact pressure would likely break down the amino acids used in her experiment, and was surprised when just the opposite occurred.

How did life begin?

I don't know if the first precursors of life got started on this planet from the pressure and heat of ultra-violet light, from the pressure and heat of atmospheric lightning, or from the pressure and heat caused by a descending meteorite. Perhaps amino acids arrived already assembled inside a meteorite. However, the most likely scenario is that a stagnant pool containing the proper constituents fell into a crack in the Earth's surface during an earthquake. The crack then closed upon the pool, and the resulting heat and pressure forced the formation of amino acids, etc. ***Possibly, life first started deep in the Earth, and then found its way to the surface.*** But however life started, inert substance "wants" to become life, and given the right conditions, it will.

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