

Source:

#ref #ret #disorganized #incomplete

1 | Larger themes

Video? perhaps like Melody sheep? <https://www.youtube.com/watch?v=ThDYazipjSI>
heavy blender

2 | General research

start with: How did life start?
content: theories of how life started,
explain miller-urey
end with we are not alone in the universe explanation:
life is inevitable

2.1 | three theories

- Volcanic clay
 - In simulated ancient seawater, clay forms a hydrogel – a mass of microscopic spaces capable of soaking up liquids like a sponge. <https://www.sciencedaily.com/releases/2013/11/131105132027.htm>
 - chemicals confined in those spaces could have carried out the complex reactions that formed proteins, DNA and eventually all the machinery that makes a living cell work. Clay hydrogels could have confined and protected those chemical processes until the membrane that surrounds living cells developed.
 - theorists have shown that cytoplasm – the interior environment of a cell – behaves much like a hydrogel.
 - Unlike surfactants, lipids are difficult to synthesize. Surfactants may transform into lipids. Apatite has been reported to be capable of catalyzing the formation of a proto-lipid 58. <https://www.intechopen.com/book/chapter/58101/minerals-in-nature-their-characterization-modification-and-application/role-of-clay-minerals-in-chemical-evolution-and-the-origin-of-life>

3 | Outline

Life is amazing, incredibly complex, the question becomes, how did it start?

Three theories:

volcanic clay deep sea vents tides of ponds

But there's more than just theories:

miller-urey experiment

TRANSITION IDEA

At home in the universe

Life, is – inevitable.

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