

Understanding the generality of terrestrial life

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We only know the life on the Earth. In this presentation I am going to evaluate the system especially genetic system of terrestrial life. Water is needed for life to solubilize the molecules and especially important to maintain the structure of protein. Protein is needed to almost all activity of life, especially catalytic activity that is carried by the protein called enzyme. All terrestrial living organism consists of (a) cell(s), surrounded by membrane. Membrane is maintained by the hydrophobic interaction driven by the hydrogen-bonding network between water molecules. Genetic information is used to form the structure of enzymes to induce catalytic activity, forming the arrangement of amino acid residues. What are the necessities and what are the coincidences? I will present some clues to the questions. These can be useful for searching for life in the Universe.

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