Mechanism of organization of molecules formed by intermolecular binding force

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The chemical evolution that occured in organization of intermolecular bonds was investigated. The first life was lived in the environment of liquid water. The intermolecular force of hydrogen bond is not strong. But it will be enhanced by appropriate arrangement, and it functions as a long range force in the organization of intermolecular bonds. There are the hydrates those are organization of basket-shaped water molecules. The membrane of a bubble is also an organization of molecules.

Positioning of molecule in the membrane is conducted by intermolecular force. The intermolecular force affects the position of atom in each molecule. Electronic state of the atom quickly adapts to its surroundings. So, the structure at beginning of damage will repair quickly by the intermolecular force. Such organizations of molecule are able to keep long life. Bubbles floated on surface of water. The molecules those collide at high speed exist in atmosphere. It is possible to produce organic molecules such as carbohydrate $C_x (H_2O)_y$ by the energy that comes from outer world such as ultraviolet ray from the floating substance of water with carbon atoms those come from oxidation of metal such as iron in carbonated water (Karasawa 2010).

A chain reaction in the membrane is one-way by the after-effect of reaction. The route of reactions plays a role as a memory of the chain reactions. An added reaction is able to represent the reactions concurrently activated. The added reaction is able to decide the next reaction. The activation of looped chain reactions is able to continue an excitation. The transference of activation can be carried out via transference of proton (H^+). Such network of reactions is possible to create the metabolism for long life (Karasawa 2013).

A tremendous number of organic molecules were generated. But a life is considered as a long series of actions. The population depends upon the period from birth to death. Only survived system is increased through the natural selection. Since intermolecular force is emphasized via the membrane, the molecular arrangement will decompose at collapse of the membrane. But some parts of the membrane do not decompose. The inherited parts included in a new system of molecules will contribute to evolution.

Protein is a chain of amino acids. Although amino acid is soluble in water, the side chain of the amino acid connects to a membrane. Thermal motion of attached amino acids is suppressed and it suppresses decomposition of the connection. So, addition of the connection will be continued. The membrane becomes robust by the structural protein. A part of membrane with protein is able to have a special form and function.

The elements of nucleotide and amino acid are fairly different. Phosphodiester bond of nucleotides and peptide bond of amino acids is also different structure. But amino acid of a protein and an activated portion of the nucleotide chain are able to correspond along the same time progress. The excited portion can be transferred via protons along the time progress. Concurrently excited states are possible to make a linkage. The specified amino acid is linked to specified portion of nucleotides. The amino acid is assigned by transfer RNA (t-RNA) during protein synthesis. The linear polymer of nucleotide that is concurrently formed is available as a record for production of the protein.

The evolution of creature is a very small probability, but it increases via a reproduction system accompanied with. That is the phenomenon of mutation. The evolved organization is reasonable but it had acquired by try and error.

References

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