Study on Similar Continued Organic Life Systems on the Rocks of Water Planet Earth

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Introduction: Solid rock (mixed to pure Si, Ca, or Fe groups) system of active Earth as A3MS are different with rocky solid (mixed Si, Ca, or Fe groups) system od inactive Asteroids and the Moon as 1MS, shown other paper in this volume [1]. However, organic compounds to life system of Carbon (C) groups are light elements (C, H, O, N) with rapid reaction on higher pressure and temperature (higher PT) condition different from rocky "mineral" as slower reaction in lower pressure and temperature (low PT) condition, especially its carbon behaviors as unclear sources and existence between rocks and air-fluid mixtures. Therefore, there are many unsolved problems of 1) condition (higher to lower PT) to form organic compounds (single to higher molecules), 2) carbon-bearing rocks on natural rocks formation of active Earth plane and inactive Asteroids, and 3) Artificial sources of carbon-bearing grains to be mixed with inactive Asteroids and active Earth rocks. The main purpose of the paper is to make sure origin and sources organic carbon formation on active Earth form called as Active Three Material States (A3MS) where almost products might be mixed with carbon during heating on global and local sites of active and inactive planet. [1-3] (Table 1).

Formation of organic molecules from two molecules during higher PT on inactive Asteroids: Mixed rocks with light elements including carbon rapidly cooled from air and fluid after various impacts are lightly connected with rocky grains of Si-system, where it is difficult to observed carbon-fixed to rocky Si system grains (except analytical -electron micrography) [5]. Although the carbon-bearing grains and molecules are formed easily on active water planet Earth as A3MS system, it's difficult to be formed and maintained for these grains and molecules for organic compounds because there is no closed system on airless Asteroids and the Moon even in higher PT events (by collisions *etc*.) by evaporated or quenched inorganic grains. This is the major difference with active water-planet Earth for its formation and remained sure to closed system as a A3MS system. This suggests that there are no static molecules of pure water or carbon dioxide (to make static organic molecules) at lower temperature on airless Asteroids and the Moon (except increases processes to make original two molecules continuously on inactive body). However, carbon-bearing rocky grains are formed as quenched inorganic grains and might be formed fluid or vapor stated at increased higher PT condition even in inactive celestial bodies of an Asteroids. [4,6]

Possible man-made sources of terrestrial carbons on in active celestial bodies: If we might use any metallic products formed by normal industrial sites with higher temperature (as *ca*. 0.2 to 6.5wt.% CO_2 contents in steel materials generally), it might be leaked in inactive celestial bodies of an Asteroids and the Moon (as in impacted sample collections or cratering).

Possible cases of the formation of organic compounds from fluids and carbon dioxides on inactive celestial bodies: On inactive Asteroids and the Moon, light element CHO-system groups are easily formed from products contained carbon elements (*cf.* steel parts) with impacted sample collections and/or analytical procedures by collision less-shock wave reactions by electron, ion and laser beam bombardments in analytical cambers and inactive celestial bodies (by natural beams from Universe and the Sun) are expected carefully to be interpreted on the paper [6]. In short, various mixed aggregates can be observed in many parts of the Asteroids with carbon-bearing grains before forming the Moon or Mars planet as intermediate solid-aggregated rocks before forming the water planet Earth with other active life-A3MS system groups as a carbon-shifted system.

Table.1 Comparison of probable organic materials of Earth, Asteroids and other extraterrestrial bodies.

Celestial bodies	Carbon-bearing organic compounds	Organic Life System
Earth (water planet)	Active three material states (A3MS) system	Yes. Non-mineral elements system separated
Asteroids, the Moon (Mars)	Inactive material state (1MS), Sputtering	? Exist as carbon-bearing grains (mixture)

Summary: The present work has been summarized as follows.

(1) Active planet model A3MS can be formed organic compounds and pure air gas and liquids.

(2) Possible man-made sources of terrestrial carbons on in active celestial bodies.

(3) Possible cases of the formation of organic compounds from fluids and carbon dioxides on inactive bodies are existed.

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