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PRIMARY DECODING OF COMPLEX STRUCTURAL ARRANGEMENTS OF DIATOM SURFACE SILICON BIOMINERALIZATION INDICATES A PROBABLE EXTRATERRESTRIAL COMMUNICATION SYSTEM

Abstract

An alternative way to convey a biological communication is to depend on a chemical which is not generally used by living creatures and simultaneously some information can easily be stored if that chemical is silicon. This creates an expectation that aliens may exploit silicon utilizing microorganisms on earthly bodies where there is a prospect of origin of an intelligent life for such a significant venture. Thus they should customize those specific silicon utilizing microorganisms to thrive in the targeted environment, living silently alongside indigenous organisms or intelligently prepared them as important agents in those resident biological systems modifying accessible in situ genetic materials. If we consider diatoms all these features appear true. Diatoms originated on earth by a novel endosymbiosis where some genetic materials were introduced in the existed eukaryotes of the red algae group. Diatoms are important silicon-utilizing organisms widely distributed throughout the Earth. They can survive in extremes of temperature, pressure, radiation, pH, salinity and nutrient conditions. This unusual tolerance to stress depends on silicon biomineralization in them. Elevated silicon level in diatoms is also responsible for their increased activities of autotrophy, encountering metal toxicities including iron toxicity, increasing mechanical strength, preventing infections, thriving easily in nutritionally compromised states. Their energy requirements are also very low, and they also can absorb various substrates from low concentration of inorganic and organic nutrients. They can withstand extreme draught and sudden changes in temperature and they can even grow in absence of any organic matter. The arrangements of mineralized silicon on diatom surfaces are extremely peculiar. Some common diatoms which are present globally were selected for this initial study. Their morphological peculiarities in relation to outer structural appearance of the silicon mineralization, granular silicon distributions, probable silicon circuit structures; hemispherical curve evaluation, classified code types along with a novel symbolic decoding of complex silicon structures of those diatoms were determined . Both elaborated and restricted coding was observed in relation to general and specific information system. A possible alien communication system is evident after this initial analysis which may be useful in the ongoing SETI program.