

On Biochemical Formation of Salt Deposits

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Salt deposits are called as evaporate deposits due to their formation by a vaporation to crystallization process. Chinese and foreign deposits textbooks still categorize them as chemically sedimentary deposits, even as deposits involving purely chemical or truly solution process. Challenging the purely chemical concept, the authors established a biochemical sedimentary model for salt deposits. A traditional idea of chemical deposition about salt minerals refers generally to their precipitating in a water/salt system under evaporation conditions. It regards salt deposition only as being controlled by salinity, temperature, CO_2 partial pressure, etc. of the system. This regard, We believe according to our data, Seems partial, seriously ignoring the tremendous role played by organism during salt deposition. In fact, a water/salt system in a evaporation environment stands as both a physicochemical regime and a biological one. Among the above physical parameters of the system, none was mentioned but was effected by halophilic organisms. The system controls salt deposition but it is one practically that has been modified by an accompaning ecological system, therefor called as a water/salt/biologieal system. Salt minerals resulted from accumulation of the remains of bacteria/algae, namely, baeteria/algae formations, while biological, biophysical and biochemical processes, also as early mentioned, provide full evidence for organic involvement. Consequently, salt deposition was caused not by purely chemical process but by

biological/chemical process. Equally, salt deposits should be termed not as purely chemical but biological/chemical.