

POSSIBILITIES OF TERRAFORMING MARS.

Mani Kant Shrivastava, Baiga Para, Gaura Chowk, Durg (C. G.), India
(kantmani12@yahoo.co.in)

“Earth’s internally produced energy (hot mantle) constantly sends submerging seawater back (Through Mid Oceanic Ridges) to surface by vaporization and thus also keeps effluence of huge amount of CO₂ (Dissolved Inorganic Carbon / DIC) and other dissolved gases alive, from submerging seawater to atmosphere. Therefore active internally produced energy is responsible for constant existence of surface water, atmosphere and greenhouse effect on Earth. Diminished internally produced energy of early Mars would have resulted into cold mantle causing gradual submersion of surface water (deposited in form of subsurface ice) into its subsurface with a large amount of DIC, breaking the efflux of CO₂ from submerging seawater to atmosphere, however its influx continued. It would have caused disappearance of surface water and poorer greenhouse effect further cooling the Martian atmosphere. Similarly other gases might also have depleted causing thin atmosphere and very low surface temperature. Melting of Martian polar and subsurface ice by increased greenhouse effect or bombardment of asteroids, etc. would make liquid water available on Martian surface but this water will again get submerged with dissolved gases into subsurface and will not return back due to diminished internal energy production. Therefore terraforming Mars is possible only when its diminished internal energy production is got regenerated to make its mantle hot again. So that submerged water (subsurface ice), trapped CO₂ and other gases may return back and exist constantly on the Martian surface and in atmosphere. Without this all the efforts to terraform Mars would ultimately result in failure. But such technology which can regenerate the diminished Martian internal energy production has not been developed so far and its possibility in near future is negligible also. So, to terraform or revive Mars we should first think that can we ever reactivate the diminished Martian internally produced energy. In future Earth will encounter similar conditions like Mars, when its internally produced energy will also get diminished.