

Topic: Current scientific dating methods are sufficient to establish the age of the earth as over four billion years

Jan 2001 - CSFNM Rebuttal to NMSR Essay by Roger X. Lenard

This is Essay4b in a series of debate topics between CSFNM and NMSR.

There are many geologists who assert the only mechanism for sedimentary buildup observed is through a Flood type phenomenon, never through uniformitarian processes. It is not necessary for layered salt deposits to occur as a consequence of cyclic floodings and evaporations. The Permian salt deposits in the Paradox Basin are easily explained in a one-year timeframe if one assumes brine-rich hot water from "the fountains of the great deep" mixed with colder seawater, precipitating numerous meters-thick layers in a one-year period. The layering is explained by a cyclic process of release of hot brine mixing with colder water over time.

Thomas states using salt content in the oceans is not a reliable age-dating method because the Na⁺ concentration has achieved steady state; the statement is false (no reference). The sodium concentration in the ocean is far from being in equilibrium. The seminal work on this shows that there are 11 known halite inputs to the oceans and 7 known outputs. The data indicate that the ratio of output to input is only 0.27, far from steady state. The solution to a differential equation expressing the inputs and outputs yields dates from 62 Myr, (minimum values for inputs, maximum for output), to 48 Myr, (maximum input, minimum output). To date there is no credible refutation of these data or the derived age dating for the ocean. Absent a well-documented study refuting the sodium argument, the sodium argument is still valid, supporting a young earth.

The assertion the isochron method of radiometric dating provides its own quality control is debunked by extant formations. As we mentioned in our earlier treatise, the Uinkaret Plateau provides a completely false radiometric date for its geologic location. The isochron method can be derived from a collection of laboratory rocks if we assume the rocks belong to the same cogenetic unit where each rock had the same quantity or ratio of daughter product when the rocks formed. The present abundances are presumed to be the initial abundances or ratios. All of this assumes an initial condition, which cannot be verified by laboratory analysis. In fact, some of the answers to the questions posed by such geologic features has been addressed by Gunter Faure, who believes magma mixing causes fictitious isochrons.

Creationists realize the complexity of helium balance; but it is not as inscrutable as Thomas would lead one to believe. As to the 1972 Geophysical Review article cited by Thomas, this unreviewed work has appears never to have been taken seriously in the scientific literature since that time. Probably that was for several reasons: First, helium is approximately uniformly mixed in the atmosphere, so it is not clear

how the solar wind could penetrate deeply enough into the atmosphere to have a significant effect on the total helium. Second, evolutionists have not explained why geomagnetic sweeping would preferentially select out the helium. Third, the pole reversals now appear to occur over timespans of weeks, far too short a time to have a dramatic effect on helium concentrations.