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## Satya's Theory of the Age of the Universe: Manifestation and Disintegration of the Matter in Spacetime - A Geochmeical/Isotopic Perspective

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## Abstract

One can calculate the maximum possible time of manifestation ($T_m$) of any unstable isotope in the Universe by assuming that all their daughter isotopes owe their existence only to the decay of their parent isotope by using the radioactivity equation: $N_p = N_i \exp(-\lambda T_m)$, where $N_p$ is the total number of parent nuclides existing in the Universe at the present time, $N_i$ is the total number of parent nuclides manifested in the Universe, and $\lambda$ is the decay constant, and $T_m$ is the time of manifestation of the parent isotope. As the decay from a parent isotope to its daughter isotope is 1 to 1, the entity $N_i$ can be obtained by adding the parent and daughter isotope ratios existing at the present time. Thus, in this equation all the entities are known except for the time of manifestation ($T_m$). Calculating the time of manifestation by this equation assumes that the radioactive decay is exponential. When we find the time of manifestation ($T_m$) of the various isotopes in this way we see that there is no order between the time of manifestation ($T_m$) and their respective atomic mass.

We can also calculate the time of manifestation ($T_m$) of any unstable isotope on an X-Y plot between the time and the daughter isotope ratio by extrapolating backwards its present-day daughter isotope ratio through its ratio at the time of formation of the Earth 4.55 Gyr ago, to the X-axis. The X-intercept (NULL Y Intercept) indicates the time when there were no daughter isotopes. In other words, this indicates the time when the parent isotopes just appeared in the Universe and started decaying. The X Intercept thus formed denotes the time of manifestation ($T_m$) of its parent isotope. Estimating the time of manifestation ($T_m$) this way assumes that radioactive decay is linear and not exponential. The Tm of the various unstable isotopes estimated this way when plotted on an X-Y plot against their respective atomic mass shows a high degree of negative correlation, and the linear array thus formed (Cosmochron) intercepts the X-axis at ~936 Gyr ago which indicates the age of the Universe. Similarly, again assuming linear decay, the time of complete decay of any unstable isotope can be estimated by extrapolating its parent isotope ratio in the Earth at the time of its formation 4.55 Gyr ago through its present-day isotope ratio to the X-axis. The X-intercept thus formed yields the time of complete decay ($T_d$) of the parent isotope.

The time of total existence ($T_e$) of any unstable parent isotope in the Universe thus can be obtained by adding together the time of manifestation ($T_m$) and time of complete decay ($T_d$). If the Te of the various unstable isotopes is plotted against their respective atomic mass, the linear array thus formed (Dotuchron) intercepts the X-axis at ~1104 Gyr which indicates the time of total existence of the Universe since its creation. Another important point to note is that the linear array formed in both the plots intercepts the Y-axis at the atomic mass of ~242 which indicates the heaviest mass of any isotope that could exist in the Universe at the present time. The atomic mass of the Plutonium isotope is 242 which is the heaviest isotope that occurs naturally in trace amounts in association with the other actinide isotopes. Thus, the proof of this theory lies in the theory itself.