

The Beginning of the World . . .

was just like the ending of Hiroshima

Oliver K. Manuel

Climate and Solar Science Institute and Former NASA PI for Apollo at Univ. Missouri
833 Broadway, Cape Girardeau, MO 73701 USA, Email: omatumr2@gmail.com

In the ruins of Hiroshima in **August 1945**, the late Professor Paul Kazuo Kuroda realized the nuclear force that powers atomic bombs and nuclear reactors is the one that made the elements and birthed the world (See last paragraph, p. 2 of Kuroda's book [1].) After he moved to the USA, Kuroda reported in **1956** natural nuclear reactors had occurred on the Earth [2] and in **1960** that spontaneous fission of Pu-244 added excess Xe-136 to Earth's early atmosphere [3]. Kuroda's claims were confirmed [4,5] and Kuroda was described last year as "*A nuclear chemist who foresaw the past: Paul Kazuo Kuroda and the Oklo Paleoreactors*" [6]. Kuroda also foresaw the heat source in Jupiter [7] and the Sun [8].

References:

1. P. K. Kuroda, *The Origin of the Chemical Elements and the Oklo Phenomenon* (Springer-Verlag, Berlin, 1982, 165 pages)
<http://www.amazon.com/Origin-Chemical-Elements-Oklo-Phenomenon/dp/3540116796>
2. P. K. Kuroda, "On the nuclear physical stability of the uranium minerals," *Journal of Chemical Physics* **25** (4): 781-782 (1956). See also *ibid.*, 1295-1296 (1956).
3. P. K. Kuroda, "Nuclear fission in the early history of the Earth," *Nature* **187**, 36-38 (1960).
<http://www.nature.com/nature/journal/v187/n4731/abs/187036a0.html>
4. R. Bodu, *et al.*, *C. R. Acad Sci. Paris, Ser. D* **237**, pages 1731, 1847 and 2291 (1972).
5. M. S. Boulos and O. K. Manuel, "The xenon record of extinct radioactivities in the Earth," *Science* **174**, 1334-1336 (1971).
6. Tibor Braun, "*The Nuclear Chemist Who Foresaw the Past: Paul Kazuo Kuroda and the Oklo Paleoreactors*" (2013, 4 pages)
https://dl.dropboxusercontent.com/u/10640850/A_nuclear_chemist_who_foresaw_the_past_Paul_Kazuo_Kuroda.pdf
7. J. M. Herndon, "Nuclear fission reactors as energy sources for the giant outer planets," *Naturwissenschaften* **79**, 7-14 (1992).
8. Oliver K. Manuel, "Solar energy," *Advances in Astronomy* (submitted 1 Sept 2014)
https://dl.dropboxusercontent.com/u/10640850/Solar_Energy.pdf