

Hydroplate Theory on the Origin of Earth's Radioactivity

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Real Science Radio

Radioactivity is an atheist's best friend. Or so they think.

For the better we understand creation, the easier we answer when they hit us with their "knockout" questions:

- If God created the Earth, why is it filled with dangerous radioactivity that causes even birth defects?
- Wouldn't the harm from Earth's radioactive decay prevent humans from living to 900 years?
- Doesn't radiometric dating (with its billion-year decay products) prove an old Earth?
- Don't elements heavier than iron, including billion-year decay products, prove supernova origins?
- Aren't creationists ignoring evidence that radioactive decay geothermally heated the Earth for vast ages?
- Wouldn't all the heat from radioactive decay melt the crust if Earth were less than 10,000 years old?
- Wasn't the oldest known intact Earth rock (found on the Moon!) radioactively dated at 4 billion years old?

If we can address those, then answering other related questions may also further the acceptance of Genesis:

- Why is 90% of Earth's radioactivity in the *continental* crust and preferentially associated with granite?
- Don't regions with more radioactivity have more geothermal heat because of eons of radioactive decay?
- How do earthquakes produce lightning (called earthquake lights)?
- How can lightning, and scientists using electrical pulses, produce radioactive elements?
- Why is the ratio for uranium isotopes U235 and U238 so wildly consistent worldwide?
- Why are so many isotope ratios so consistent from those in granite countertops, to potassium ores, etc.?

If a single hypothesis appears to answer many seemingly unrelated questions, that proposal merits consideration. Here, those questions, theological, isotopic, astronomical, mineralogical, electrical, chemical, geological, and nuclear, seem especially formidable. But forty years ago Walt Brown, Ph.D. in mechanical engineering from MIT, proposed the Hydroplate Theory (HPT). Then, just a decade ago, Dr. Brown expanded the theory with a single hypothesis that appears to answer the above questions.

HPT Hypothesis: Earth's radioactivity formed as the flood's tectonic forces stressed quartz which thereby produced electrical surges that squeezed nuclei to fuse and fission unstable heavier elements.

If the hydroplate theory is essentially correct, then that single sentence should be able to help answer every one of the above questions. So let's test it.

Theological: God would not create a crust filled with so much radioactivity that nuclear decay would readily break chromosomes and cause other damage including even lethal birth defects. However, if a repeatable electrical process called *Z-pinch* squeezed together nuclei in the crust during the Flood to form Earth's radioactive (unstable) elements, then:

- Earth's crust was not created radioactive
- radioactivity originated after creation, during the Flood
- longevity rapidly decreased as Genesis documents
- and we don't need to appeal to miracles not implied in Scripture to explain radioactivity.

This provides an answer to the atheist's theological "knockout" question and turns our attention to the forces exerted on quartz during the global flood. Were those forces sufficient to produce the electrical surges needed for Z-pinch to create Earth's crustal radioactivity?

Electrical & Nuclear: Nuclear physicists have been slow to acknowledge the observational and experimental evidence confirming that strong electrical currents produce nuclear reactions. Seven years after Dr. Brown published his radioactivity theory based on the little-noticed research showing that lightning



produces radioisotopes, rsr.org/hpt#wwb, the journal *Nature* confirmed that lightning storms trigger "photonuclear reactions". Science editors thought this was a new discovery and our radio program received emails

from around the country celebrating yet another affirmation of the physics behind the HPT's origins of Earth's radioactivity. Also, experiments at Los Alamos National Laboratory in the U.S., in Germany, and most notably in Ukraine's Proton-21 Electrodynamics Research Laboratory show that Z-pinch overcomes the opposing Coulomb electrical



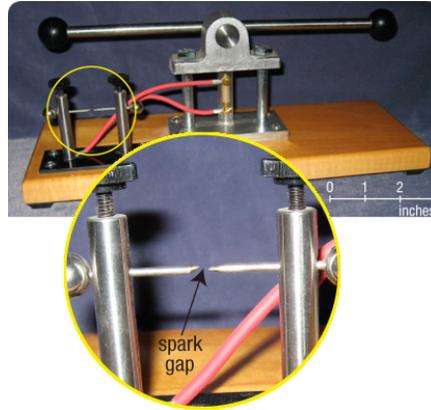
forces of protons and produces heavy elements by fusion. Proton-21 holds patents in the U.S., Europe, and Japan. And their thousands of experiments regularly produced "significant quantities... of all known chemical elements, including the rarest ones". A brief 50,000 volt electron flow self-focuses (Z-pinch) inside a nearly pure mineral target (copper, silver, lead, etc.) producing elements in abundances generally *corresponding to their ratios* in the Earth's crust!

This provides the foundation to refute the astrophysics claim for the origin of heavy elements. For like lab technicians with electrical pulses, as a non-supernova phenomenon, lightning, in the atmosphere or within minerals, can produce heavy elements, including unstable ones.

Mineral & Electrical: Beloved geophysicist creationist Dr. John Baumgardner has written against Dr. Brown's hypothesis asserting an inability of granite to produce giga-voltages. Likewise, in a lengthy phone call with me, rsr.org/answers#voltages, Dr. Baumgardner said there is "no observational evidence" that the quartz crystals in granite when stressed can produce such voltages. This represents "a fatal problem for Brown's claim". However the theory at Dr. Brown's creationscience.com site always included references to the scientific literature for significant experimental and observational evidence for earthquake lights and piezoelectricity including in *Tectonophysics*, *Monographs in Geoscience*, Springer's *Electrical Properties of Rocks*, and by the United States Geological Survey. See these references in the link above. And also, remembering that quartz makes up a quarter of granite's volume, "Piezoelectricity, a polarization of charge produced by an applied stress, occurs in many minerals. It is particularly strong in

quartz..." And, "All quartz-rich rocks (quartzites, granites, gneisses, mylonites) did show [statistically significant] piezoelectric effects when stressed..."

In Dr. Brown's office our seven-year old son Michael generated a spark by turning a lever and squeezing a bit of quartz. Years later on Real Science Radio, at rsr.org/answers-2, I interviewed an American Geophysical Union presenter Tom Bleier of Denver's aerospace firm Stellar Solutions on its earthquake



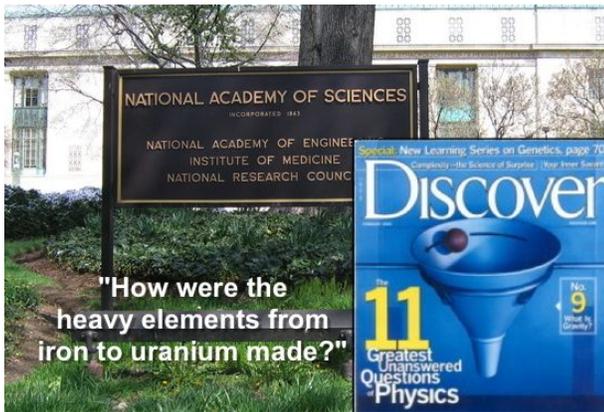
forecasting effort. National Geographic quoted Bleier (see link): "These currents are huge... They're on the order of 100,000 amperes for a magnitude 6 earthquake and a million amperes for a magnitude 7. It's almost like lightning, underground." A European Geosciences Union presentation even showed video of ants, with their apparent ability to detect a magnetic field, vacating their colonies prior to earthquakes and not returning until a day after the shaking stopped. (God's amazing!)

Flood events, including rapid mountain-building, produced off-the-charts tectonic forces that generated worldwide subterranean piezoelectric earthquake lightning of giga-voltages which explains why:

- radioactivity is mostly in the continental crust because that's where most quartz is found
- radioactivity is preferentially associated with granite because quartz makes up 27% of granite
- regions with more radioactivity also have more ground heat, not because radioactive decay produced the heat, but because more tectonic activity in certain places produced more radioactivity and more geothermal heat.

Also, the widely-rejected old-earth claim that the heavy radioactive elements had to be produced in supernovas is now even further undermined. For if produced in space and a billion years later they had concreted onto the molten Earth, the most dense elements should not have floated, but sunk into the mantle and core.

Astronomical & Chemical: The National Academy of Sciences (NAS), NASA, et al., had long claimed with certainty that supernovas formed the many elements on the periodic table heavier than iron. However, by the year 2000 the NAS and NASA admitted the failure of this hypothesis, see rsr.org/supernovae, when they published eleven science questions with #10, "How were the heavy elements from iron to uranium made?"



Mainstream science now admits to two of three easy ways to falsify the supernova claim. First, there are insufficient neutrons in a supernova to create a large quantity of neutron-rich heavy elements. Second, telescopes looking at actual supernovas do not detect the heavy element spectral emissions that should be visible. But not to be left without words to utter, theoretical physicists are now claiming that heavy elements must have been formed by the collision of neutron stars or neutron star mergers with black holes. Estimates for the Milky Way suggest that perhaps a billion stars could eventually supernova but that our galaxy has only a million black holes and maybe a million or more neutron stars. So the number of neutron star mergers and collisions may be three to six orders of magnitude less expected than supernovas.

However, the third easy way to falsify the old supernova claim also falsifies any stellar origin for the heavy elements claimed to fall onto a molten Earth. Uranium, for example, makes up 1.4 parts per million of the crust, yet only 0.004 ppm of (exposed) mantle. The most dense elements, including gold, tungsten, and uranium, would have sunk into the mantle and the core, and certainly would not have floated upward against gravity toward Earth's surface. If this were not obviously true,

geophysicists should demonstrate in a laboratory experiment or by computer simulation that uranium floats in magma. (And to help their case, let the researchers select any magma mineral composition they propose on their early Earth.) It is evident that after millions of years swirling in stellar nebulae and sinking in magma, uranium would not end up concentrated with granite near Earth's surface in the continental crust.

Geological & Isotopical: Variations of the uranium atom, called isotopes, appear in *wildly consistent* ratios around the world. For every 142 atoms of U-238 of natural uranium there is a single U-235 atom. And with the Earth allegedly 4.5 billion years old, that only gives time for a single U-238 half life of 4.5 billion years. (U-235 has a 700 million year half-life.) Isotopes are atoms of the same chemical element but of differing atomic mass. If heavy elements were formed in space, including their varying isotopes, physical forces over billions of years would work to segregate their slightly "lighter" and "heavier" versions. The Department of Energy's centrifuges produce many orders of magnitude greater centripetal force than does a spiral nebula. So, enriching nuclear fuel takes only weeks. Yet those same atoms allegedly resisted separation over hundreds of millions of years in a spiral nebula? Due to the isotopes differing masses, the forces both in a nebula and those during more millions of years in a molten Earth, will work to physically *separate* isotopes, not to keep a single lighter atom adjacent to 142 of its heavier siblings, almost everywhere worldwide.

These wildly consistent ratios in local groupings of atoms indicate that many radioactive elements were formed right here on Earth by Z-pinch which fused together lighter nuclei. In countless ore veins (and in granite countertops for that matter), the uranium was produced in place, right where we find it today, *in situ*.

But what caused these *consistent* ratios in the first place? As with the Proton-21 lab experiments, Z-pinch during the Flood produced an unstable element twice as heavy as uranium. When nuclear decay simultaneously produces two or more daughter products, these have very precise ratios to each other, called *branching ratios*, which for rsr.org/waltradium is 0.71 aka 1:142. (Stay tuned for Part 2.)