RATE Posters Well Received at AGU Conference

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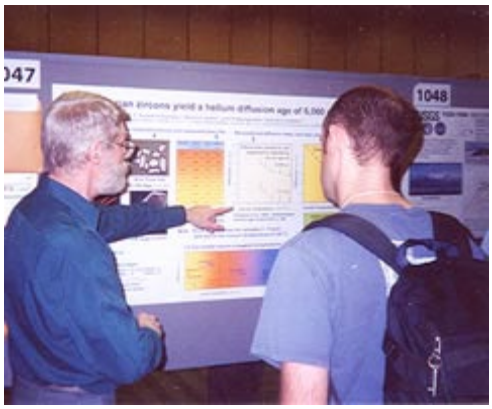
Three RATE scientists presented posters at the 2003 American Geophysical Union Fall Conference in San Francisco in early December. John Baumgardner, Russell Humphreys, and Larry Vardiman each offered exciting results coming from research on Radioisotopes and the Age of the Earth for the first time to a general science conference. The posters were well received by the organizers and attendees at the conference.

About 10,000 scientists from all fields of geophysics meet annually at the Moscone Center in San Francisco to make presentations on their latest research. This year's conference included a session on the *Centennial Celebration of Radioisotopic Geochronology: Dates, Rates, and New Debates.* Abstracts at the conference may be reviewed at their website under Fall 2003 Conference. This seemed like an ideal opportunity for RATE to report its latest results in a public forum.



Dr. Humphreys, recently of Sandia National Laboratories and now full-time with ICR, reported on *Recently Measured Helium Diffusion Rate for Zircon Suggests Inconsistency With U-Pb Age for Fenton Hill Granodiorite* (V32C-1047). His actual poster had a title even more provocative to geoscientists: *Precambrian zircons yield a helium diffusion age of 6,000 years. ("Precambrian" implies an accepted age of more than a half-billion years.)* He presented his findings that granites which are dated at more than a billion years old with Uranium-Lead dating methods still have large quantities of helium in them. This Helium along with Lead are daughter products of the radioactive decay of Uranium. The Helium should have all diffused out of the granite by now if it were a billion or more years old. However, if the granite is only thousands of years old, the quantity of Helium still remaining agrees very closely with the rates Dr. Humphreys obtained from laboratory measurements of helium diffusivity in zircon. The measurements of the helium gave an age for the zircons of Biblical proportions: 6,000 ± 2,000 years. These findings indicate more than a billion years worth (at today's rates) of nuclear decay of Uranium has occurred within the last 6,000 years!

Dr. John Baumgardner from Los Alamos National Laboratory and an active member of the RATE group reported on *The Enigma of the Ubiquity of ^{14}C in Organic Samples Older than 100 ka* (V32C-1045). He discussed his findings that various geological samples which are thought to be millions of years old, including diamonds, contain measurable amounts of Carbon-14. Samples this old should Dr. John Baumgardner have no Carbon-14 because it would have all decayed by now. Residual Carbon-14 found above the background level indicates

that these samples thought to be millions of years old can be at most thousands of years old. The presence of Carbon-14 in diamond was of particular interest because diamonds eliminate the likelihood of contamination.

Dr. Larry Vardiman, the facilitator of the RATE project, presented a poster prepared by Dr. Andrew Snelling on *Abundant Po Radiohalos in Phanerozoic Granites and Timescale Implications for Their Formation* (V32C-1046). He discussed the presence of Polonium radiohalos in granites and a mechanism for their formation. Radiohalos are discolored spheres of crystal surrounding centers of radioactive material like Uranium, Thorium, and Polonium. These Polonium radiohalos appear to have formed under catastrophic conditions which occurred during Creation or the Flood only a few thousand years ago. Radiohalos can only form very rapidly in a narrow temperature range after granite has cooled from magma to crystalline rock cooler than 150°C but before the radioactive center has completely decayed and hydrothermal circulation through the rock ceases. In the case of Polonium this must have happened on the order of weeks, not thousands or millions of years and was probably part of a brief but intense hydrothermal process combined with extremely rapid nuclear decay.

The three papers were controversial but were accepted for poster presentations by the AGU organizing committee and were well received by those who interacted with the authors. The RATE scientists were greatly encouraged by the good reception they received. Some of the scientists who visited and talked with them were from radioisotope laboratories at the University of California at Berkeley, Lawrence Livermore, Yale, the Massachusetts Institute of Technology, the University of Michigan, etc. The visiting scientists did not necessarily agree with the conclusions but the authors received no major negative comments. Some visitors actually offered suggestions to assist in future research. We hope these researchers will spread the word that Creationist scientists are conducting quality work and have solid evidence for a completely different paradigm about the age of the earth.