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Radiocarbon in Diamonds Confirmed

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During the RATE (Radioisotopes and the Age of The Earth) research project at the Institute for Creation Research, co-sponsored by the Creation Research Society, some of the research effort was focused on investigating radiocarbon (carbon-14) dating. This is one of the radioactive dating methods, but because carbon-14 decays relatively rapidly it only provides "ages" in the range of tens of thousands of years. In fact, if every atom making up the earth was carbon-14, even after just 1 million years there would be absolutely no atoms of carbon-14 left, because they would have all decayed away, based on today's measured half-life! That's why radiocarbon dating isn't used to date rocks at millions of years.

The RATE radiocarbon research first focused on demonstrating that significant detectable levels of carbon-14 are present in ancient coal beds.[1,2] Ten samples from U.S. coal beds, conventionally dated at 40–320 million years old, were found to contain carbon-14 equivalent to ages of around 48,000–50,000 years. The laboratory did repeat analyses and confirmed that this carbon-14 in the coals was not due to any contamination either *in situ* in the samples or added to the samples in the laboratory. Of course, these would not be the true ages of these coal beds, because these 48,000–50,000 year ages are calculated at the present-day level and production rate of radiocarbon. The fact that all these coal beds yield radiocarbon ages in the same "ballpark" is consistent with them all having been formed at the same time in a recent catastrophic event. This is, of course, consistent with masses of pre-Flood vegetation being swept away and buried on a huge scale globally during the cataclysmic Genesis Flood.

Buoyed by this success, the RATE radiocarbon research next checked for carbon-14 in diamonds. Diamonds are the hardest known natural substance and resist physical abrasion. Also, the chemical bonding of the carbon in diamonds makes them highly resistant to chemical corrosion and weathering. Diamonds also repel and exclude water from adhering to their surfaces, which would eliminate any possibility of the carbon in the diamonds becoming contaminated. Sure enough, the diamonds submitted for radiocarbon analyses did contain detectable, significant levels of carbon-14, equivalent to an age of around 55,000 years. Again, the laboratory did repeat analyses and discounted any possibility that this carbon-14 was due to contamination, in situ to the diamonds or added in the laboratory. At 1–2 billion years old, these diamonds, which are formed deep inside the earth, are regarded as being related to the earth's early history. Therefore, it was concluded that carbon-14 in these diamonds was consistent with a young age for the earth itself.

Confirmation that there is *in situ* carbon-14 in diamonds has now been reported in the conventional literature.[3] R.E. Taylor of the Department of Anthropology at the University of California–Riverside and of the Cotsen Institute of Archaeology at the University of California–Los Angeles teamed with J. Southon at the Keck Accelerator Mass Spectrometry Laboratory of the Department of Earth System Science at the University of California–Irvine to analyze nine natural diamonds from Brazil. All nine diamonds are conventionally regarded as being at least of early Paleozoic age, that is, at least several hundred million years old. So, if they really are that old they should not have any intrinsic carbon-14 in them. Eight of the diamonds yielded radiocarbon "ages" of 64,900 years to 80,000 years. The ninth diamond was cut into six equal fragments, which were each analyzed. They yield essentially identical radiocarbon "ages" ranging from 69,400 years to 70,600 years. This suggests the carbon-14 was evenly distributed through this diamond, which is consistent with it being intrinsic carbon-14, and not contamination. Interestingly, samples of Ceylon graphite from Precambrian metamorphic rock (conventionally around 1 billion years old) were analyzed at the same time and yielded radiocarbon "ages" of from 58,400 years to 70,100 years.

These results, from a different radiocarbon laboratory to that used by the RATE group, confirm that there is intrinsic carbon-14 in natural diamonds. Therefore, they cannot be hundreds of millions or billions of years old, as there is no other current credible explanation for the presence of this carbon-14. Less carbon-14 was found in the diamonds in this study reported in the conventional literature. That was because the diamonds were mounted directly in the beam within the analytical instrument, whereas in the RATE study the diamonds were combusted to convert the carbon to carbon dioxide, which was then converted to graphite that was analyzed in

the instrument. That process may have introduced some more carbon-14 to the analyses.

The University of California scientists, of course, did not conclude that the diamonds they analyzed are evidence that the earth is young. Instead, they interpreted these 64,900–80,000 year "age" to represent one component of "machine background" in the analytical instrument. Yet this begs the question as to why then did the Precambrian graphite contain on average more carbon-14 to yield younger ages than the diamonds? And why did the diamonds have such different carbon-14 contents to yield different apparent radiocarbon "ages"? Because the same instrument was used to analyze all the diamonds and the graphite, the results should surely have all been affected by the same "machine background". Rather, these results may further confirm the conclusions of the RATE radiocarbon project that natural diamonds, which are related to the earth's early history, show evidence of being only thousands of years old and provide noteworthy support that the earth is young.

Footnotes

1. Baumgardner, J.B., 2005. ^{14}C evidence for a recent global Flood and a young earth. In, Vardiman, L., A.A. Snelling, and E.F. Chaffin, (eds.), *Radioisotopes and the age of the earth, vol. 2: Results of a young-earth creationist research initiative*, pp. 587–630. El Cajon, California: Institute for Creation Research and Chino Valley, Arizona: Creation Research Society.
2. DeYoung, D.B., 2005. *Thousands … not billions: Challenging an icon of evolution, questioning the age of the earth*, pp. 45–62. Green Forest, Arkansas: Master Books.
3. Taylor, R.E., and J. Southon, 2007. Use of natural diamonds to monitor ^{14}C AMS instrument backgrounds. *Nuclear Instruments and Methods in Physics Research B* **259**:282–287.