

RATE GROUP CONFIRMS FAST DIFFUSION OF HELIUM IN ROCKS

by Larry Vardiman, Ph.D.



L to R: Bill Hoesch; Stephen Boyd; Donald DeYoung; Steve Austin; John Baumgardner; D. Russell Humphreys; Andrew Snelling; Eugene Chaffin; John Morris. Front: Chairman, Larry Vardiman.

The RATE (Radioisotopes and the Age of The Earth) research group gathered in San Diego for its fifth annual meeting on July 27–28, 2001. The seven members of the group—Drs. Steve Austin, John Baumgardner, Eugene Chaffin, Donald DeYoung, D. Russell Humphreys, Andrew Snelling, and Larry Vardiman—were joined by several observers including Drs. John Morris, Henry Morris III, Kenneth Cumming, Stephen Boyd, and Mr. Bill Hoesch. All group members delivered presentations outlining progress in their research, including results of radioisotope dating of various rock strata.

The major advances reported by the group were the confirmation of high diffusion rates of helium in biotite, preliminary statistical results on the geological distribution of uranium, thorium, and polonium halos in granites, and some theoretical conditions for the occurrence of accelerated nuclear decay. Dr. Humphreys reported on the results of laboratory measurements of helium diffusion as a function of temperature in biotites (containing helium from uranium decay in zircons) from two different rocks. The measurements confirm the RATE prediction that diffusion in biotite

is rapid. Helium formed from the decay of uranium millions of years ago should have diffused through the granites in the earth's crust and be present in today's atmosphere. Yet, the atmosphere contains less than 1/2000th of the amount it should have if the earth is 4.6 billion years old. Much of the helium is still found in granites of the crust. The diffusion rate appears to agree closely with a young earth and recent accelerated decay. We plan to analyze a third rock sample from the base of Grand Canyon.



Dr. Snelling prepares rocks for RATE research.

Dr. Snelling presented a preliminary report on the types and locations of radioactive halos in 18 samples from 11 different locations in the United States, Australia, and Europe. A total of 1,144 halos were counted and distributed as follows: $^{210}\text{Po}=428$, $^{214}\text{Po}=292$, $^{218}\text{Po}=0$, $^{238}\text{U}=402$, and $^{232}\text{Th}=22$. One important finding from this distribution of halos is that the isotope of polonium with the shortest half life of only a fraction of a second, ^{214}Po , has produced a great number of halos while no halos were found from the polonium isotope preceding it,

^{218}Po , with a longer half life. These distributions may give a hint about the physical mechanisms which occurred during the Creation Week and the Flood to produce the halos. These halos are also physical evidence that a lot of nuclear decay has occurred at some point during the earth's history. We plan to collect more samples from various sites (up to 50) around the world and look for halos.

Dr. Eugene Chaffin presented some advances in his theoretical studies on possible mechanisms for accelerated nuclear decay. He has found a number of connections between nuclear and cosmic constants and accelerated decay. For example, he reported that alpha decay rates may become unstable for varying potential well depths, the energy potential a particle experiences in the nucleus. Because nuclear particles exhibit wave-like properties, changing potential well depths causes the number of wave nodes to change, resulting in variations in the probability of particles tunneling through the energy barrier and, thus, the decay rate. Dr. Chaffin also discussed the relationship between some cosmic constants, such as the fine structure constant, and decay rates. Some models appear to have the concept of accelerated decay rates built into them. We plan to put even more emphasis on theoretical studies this next year.

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Dr. Snelling gives a presentation. L to R: Drs. Baumgardner; DeYoung; Chaffin; Humphreys.

Dr. Stephen Boyd, Professor of Bible at The Master's College, was invited to observe the RATE meeting and consider if he would like to participate in theological studies for RATE which would lend support to a young-earth position. He offered a short presentation of his studies which support a literal interpretation of Genesis 1–2 versus the allegorical approach of so many theologians today. He briefly discussed several methods which distinguish the literal from the allegorical interpretations such as authorial intent, prose versus poetry, the theological polemic, and the structure of a passage. Dr. Boyd has been invited and has agreed to participate in the RATE project. He will be reporting more research results at next year's RATE meeting.

The RATE group was pleased to receive a financial report that showed \$132,782.69 was donated to RATE during the fiscal year ending June 30, 2001. This was the largest amount of money yet given during the five-year life of the project. A total of \$321,534.76 has been given over the five years and \$131,639.20 has been spent, leaving \$189,895.56 for future research. Over \$100,000 will likely

be spent this next year, mostly on sample preparations and analyses. We still need a minimum of about \$180,000 by the end of the project in 2005 just to cover the direct costs of research and publishing. If we were to cover all of the salaries for the researchers, however, another \$500,000 would be needed.

RATE has already accomplished sufficient progress to this point that the final report could be written now and a major contribution would have been made to the question of Radioisotopes and the Age of The Earth. However, we still have two years for more research, then two years for writing before the final manuscript is due. Would you pray with us that even more progress will be made and even greater results will occur? Thank you for your donations and prayers. [The RATE Group.] 

For more information
on RATE research,
check our website at:

www.icr.org/rate.html



From USA

“We are sending this donation as a small thanks for the many years your ministry has been a blessing to our family. The monthly *Acts & Facts* you have been sending us has been greatly appreciated and helpful for learning. The seminars we’ve been able to attend have always been great. Your Bible-based science material has helped me in developing Sunday school classes, children’s church mini-series, small adult seminars, and of course in home-schooling my own two teenagers. Thank you!”

E-mail from Washington

“I just wanted you to know what a blessing *Days of Praise* is to me. The ability to always have a short devotional as I start my day is of great worth. I have forwarded copies of the *Days of Praise* to just about everyone on my e-mail address book, highly recommending it and your other ministries. God bless you all there at ICR.”

From Alabama

“Thank you very much for continuing your ‘Science, Scripture, & Salvation’ radio broadcasts here in my local area. I continue to be greatly blessed by the information provided on your radio program, and I pray that the Lord will continue to make it possible for me to hear your radio program in my area.”

From California

“My parents graduated from Christian Heritage College and attended many ICR classes. I’ve been homeschooled all my life and I’ve grown up with your philosophies. Thus, I do not suffer with the confusion of my peers. Enclosed is a title from my first pay check of my new job. I recognize that you have had a profound effect on my life.” ☞

The end of this month we begin our newest series, “Regions of the World,” where we’ll explore different climatic regions to see how plants and animals unique to each environment show the fingerprints of God.

This month on “Science, Scripture, & Salvation”:

Weekend of: Title/Topic:

- Oct. 6** **“Creation & End Times”**
As Christians, we know there’s a time coming when this present world will cease to exist. In our desire to learn more, we turn to the last book of the Bible. But could it be that the first book also contains valuable insights? Listen and learn.
- Oct. 13** **“Complexity of Minerals”**
When you think of minerals, do you think of something simple or something complex? Did you know that each mineral composition is a unique combination of molecules? How did minerals form? Tune in!
- Oct. 20** **“Earth’s Recycling Systems”**
The earth is the most unique place in the universe because God created it to be inhabited—by plants, animals—and by us. And He designed complex systems to maintain the life He created. Could these systems have evolved? Listen to find out!
- Oct. 27** **“Polar & Arctic Regions”**
The world was vastly different after the Flood from before the Flood—plants and animals *had* to adapt to survive in their new environments. Was this ability to adapt pre-programmed into their DNA code—or was it simply a product of evolution? Tune in and learn the truth! ☞

Creation Science in Eastern Europe

by Dr. Alexander Lalomov

After many years of complete domination by the evolution worldview, the creation science movement in eastern Europe is on the rise. After a few years of low activity, in the fall of 2000 two new creation ministries were organized in Moscow. The first, “Shestodnev” (Six-Day Creation) was organized under the Russian Orthodox Church. In spite of differences with protestants in confessional points, they recognized the great services of protestant creation scientists. They also claimed that their point of view of the origin of the universe, life and man is the same as the position of fundamental protestants. Therefore we now see the possibility to unite with Orthodox creationists in the field of science.

Second, the Society for Creation Science (SCS) unites all creation scientists not only from Moscow and Russia, but the entire territory of the former Soviet Union. In spite of its short time of existence, more than 30 scientists of D.Sc., Ph.D., and M.S. degrees in various scientific fields (geology, biology, physics, mathematics, ecology, archaeology, linguistics) are members of our Society. SCS helps coordinate the scientific investigations of our members, organization of creation scientific meetings and propagation of scientific evidences of creation.

Since last fall SCS has participated in several Russian conferences on theological, educational, and scientific problems. Members of SCS are reviewers of creation literature published in Russian. One of the more interesting results of the SCS activity is that after debates between creationists and evolutionists in Kiev (where our experts in geology and biology took part), the Ukraine National Academy of Science agreed to publish creationists’ scientific articles in their journal for discussion.



Also, the article of French geologist Guy Berthault (with interpretation of the Tonto Group by Dr. Steven Austin) was translated into Russian and has been accepted for publication in the *Journal of the Russian Academy of Science*, “Stratigraphy and Geological Correlation.”

SCS members publish their own research in the various fields of creation science which are published in Creation Research Society Quarterly, Creation Ex Nihilo Technical Journal, in Russian collections of creation articles, and in current websites www.mtu-net.ru/creation (for the present mostly in Russian), and also see the following site: www.creationism.org/arctur (in English).

There are many published books for lay people in Russia. However, professional creation articles in Russian are almost absent. In an effort to remedy this situation, we plan to publish a scientific anthology, “SOTVORENIE” (Creation), with professional and technical research articles by well-qualified experts in the different fields of creation science. In the first issue we plan to translate and publish in Russian key articles in creation science by Andrew Snelling, Steven Austin, John Baumgardner, and other foreign creation scientists. We have started to organize a creation library in Russia which will contain essential and interesting research results of creation scientists.

In May of 2001, I visited USA and had several meetings with the leading creation scientists. My wife and I welcomed the opportunity to join Austin, Snelling, Kurt Wise, Ken Cumming and others for a 13-day research trip in Grand Canyon. As a sedimentologist, it was the trip of a life-time and we have large prospects for cooperation.

E-mail: alex.lalomov@mtu-net.ru ☎



KOREAN CREATION

The ICR family wishes to extend hearty congratulations to our sister organization, the Korean Association of Creation Research (KACR) on the 20th Anniversary of their founding. In 1980, ICR's then-president, Dr. Henry Morris, and Dr. Duane Gish held a series of meetings in Korea which stirred such interest that KACR was soon founded under the leadership of Dr. Young-gil Kim and now president Dr. Man-suk Song. Under their wise and prayerful direction, the creation message has flourished, until now over 300 Ph.D. scientists are active in KACR's research and outreach programs. Over the years they have translated numerous creationist books into Korean, and recently their scientists have written their own books, including some which have been used as textbooks in universities and high schools.

On August 18–20, I was privileged to participate in a celebration symposium and lectures. It was a thrill to observe how powerful creation research projects and education penetration efforts have come to fruition. KACR has blanketed the country with the creation message, impacting every area of society, from education to the media and the churches. They are now sending out creation missionaries (professors) to other Asian countries as well as back to the Korean population in America. Their attractive creation museum, which has been functional since 1993, is now moving to a larger, more visible site.

The scientists involved are from my observation, wholly committed to the Lord and spend much time in prayer. We are thankful to have such a partner in creation ministry as KACR. We extend congratulations and prayers for the work ahead. 🌿

DISCONTINUITY CONFERENCE AT CEDARVILLE UNIVERSITY

The beautiful campus of Cedarville University, Ohio, was host to the 2001 *Discontinuity: Understanding Biology in the Light of Creation* conference, August 15 to 17. The purpose of this conference was to bring together scholars of creation biology so that the principle of discontinuity (the proposal that life does *not* show a continuous evolutionary line) would be elaborated. Thirteen plenary speakers covered the foundations, methods, and applications of discontinuity.

A variety of professionals, including ICR's biology Chairman, Dr. Ken Cumming spoke on: discontinuity in the days of creation, biological universals, classification systems, structures and types, hybridization studies, taxonomy, research programs, biochemistry, cytokinesis, developmental biology, and the fossil record. Seven additional research presentations filled in the balance of this three-day conference held in the new student center.

Highlights of the conference were:

- 1) There is a general consensus that created kinds lie close to the family level of Linnean classification;
- 2) Discontinuities are evident in all major disciplines of life science;
- 3) Hybridization studies indicate a relatively small number of basic types;
- 4) Even paleontological studies are pointing to a young-age fossil record;
- 5) Origin of life studies reveal that information theory explains why life can't be formed from non-life;
- 6) A growing data base on discontinuity is being assembled at Bryan College.

This second conference on created kinds with its seventy-five attendees was funded jointly by ICR, Cedarville University, and Bryan College, which are to be commended for their firm stand on a literal six-day young-earth position. Along with the RATE initiative explained on page 1, it heralds still another twenty-first century creation science initiative. 🌿

Stewardship & Trust Services

“Thinking Bigger”

“ . . . say unto this mountain . . . ” Matthew 17:20

ICR is facing some breathtaking “mountains” ahead—and we will need your partnership to overcome them. This unusual illustration that Jesus gave focuses on the use of our faith. He made the point twice. Once when the apostles could not cast out a demon (this is the place where He also spoke of the mustard seed), and then again after He had cursed the fig tree. Both times the emphasis was not on the *amount* of faith, but the *quality* of faith—and the expectation that we would recognize that He had prepared us, and that we would USE our faith.

U. USE WHAT YOU HAVE ALREADY!

Moses and Rod (Exodus 4:2–4)—Knowledge, Equipment
Widow of Zarephath (I Kings 17:10–16)—Present Resources
King Darius (Daniel 6:14–23)—Time, Effort, Prayer
Esther and Mordecai (Esther 4:13–17)—Beauty, Boldness

S. START DOING IT!

Joshua and the Jordan (Joshua 3:5–17)—Obedience
Prophet’s Widow (II Kings 4:1–7)—Public Display
Man Born Blind (John 9:1–7)—Trust in unusual circumstances
Lazarus’ Funeral (John 11:39)—Take initiative, even if unpleasant

E. EXPECT IT TO HAPPEN!

Centurion’s Servant (Matthew 8:5–14)—Relate your experience
Woman with Illness (Mark 5:25–34)—Desperate need
Nobleman’s Son (John 4:46–53)—Trust in God’s Word
Canaanite Woman (Matthew 15:21–26)—Persistence

Many of you who receive *Acts & Facts* have contributed faithfully to ICR, some for many years. For you we especially give thanks and ask that our Lord will continue to bless in your lives. To you we would offer encouragement with the impact and success that God has given ICR. You have helped make it possible. Of you we would ask that you continue and “think bigger” in the days ahead.

Those of you who have not yet begun to contribute to this great undertaking, please catch something of the vision. The “mountains” are exceedingly high and we are of “little strength.” The battle between worldviews is at the core of the issues that face our nation—and our world. The research that ICR is performing and the training of key leaders is both vital and costly. Please help and share with us that both of us “may rejoice together” (John 4:36).

And for all who read these words we ask that you pray with us. God is opening wonderful opportunities for ICR, and we desire His provision. There is equipment that needs purchase and installation. There are key projects that need funding. Vital research and outstanding scientists are waiting for financial support. Think—and pray “bigger” with ICR about these great prospects.

Henry Morris III, ICR Strategic Ministries, P.O. Box 2667,
El Cajon, CA 92021. E-mail: hmorrisiii@icr.org