Articles and Essays

# Radio Dating: Specious Creativity

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**Radio Dating**
**Special Creation vs. Specious Creativity**
by Dr. Robert Bennett

## Abstract

Theistic evolutionists claim that a Genesis day can stretch into billions of years as they attempt to "baptize" evolution. Their chief and critical premise is the uniformitarian or cosmological principle, which states that all natural laws and processes have been free of catastrophes and exceptions, virtually static and constant, forever. All evolutionary propaganda hinges on this old earth/universe principle to explain current observations. Indeed, the linchpin of modernist physics is the dark art of radio dating. When this support prop is discredited, the house of cards known as evolution will collapse. The inerrancy of all of Sacred Scripture, from Genesis to Revelation, must be maintained if natural science is to contribute to our understanding of man and the universe. However, the philosophical and ideological systems that have produced evolutionary science have rejected Scripture and Tradition as sources of truth and have produced the moral decay described by Pope John Paul II as "the culture of death." As now used by natural scientists who believe in evolution, radio dating has no value as an objective source of prehistoric chronology. At best, it serves as a tool of intimidation in promoting evolutionary ideology.

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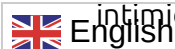
**The "Science" of Time Measurement?**

"What time is it?" is a question that technical science can answer with nano-second accuracy. "When did time begin?" however, leads to answers that are patently ridiculous. In this paper, we will explore the truth behind the claims of theistic evolutionists that a Genesis "day" can stretch into an "age" of billions of years.

The critical premise of evolutionary natural science is the uniformitarian or cosmological principle, which states that all the laws and processes on earth, indeed throughout the universe, have NEVER CHANGED. Conflicts arise at once between Divine Revelation and current scientific paradigms established on the uniformitarian principle. However, none of these paradigms is entirely consistent with the principle. The standard cosmological model of the universe, the Big Bang theory, begins with an unexplained origin that creates space and time. And this is just one of the exceptions to the universal cosmological principle.

The uniformitarian assumption also conflicts immediately with the known global Scriptural singularities listed below, and strongly influences the areas of natural science most affected by these events:

| Creation | Science Domain |
|---|---|
| Post-Fall corruption: | archaeology |
| Global deluge | sedimentology, stratigraphy |
| Division of languages/races at Babel | paleontology, genetics, linguistics |

What is the track record of evolutionary minded natural scientists on the subject of time? Credibility should rest on the proven success of modern science in other temporal measurements. Do the underlying premises of materialism and universal uniformity affect the objectivity of natural

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scientists who believe in evolution?

Let us consider a topic which should be easy to study—certainly much easier than the alleged eons of time since the Big Bang started—the age of humans today.

The life expectancy of Americans is said to be roughly 75 years, world-wide 64 years. Measured from birth to death, this statistic is said to reflect an improvement in medical care in the United States of America, reversing the Biblical trend of decreasing lifetimes, and heralding the rosy triumph of modern man's ingenuity and lifestyle!

But biologists inform us that human life begins with the fusion of egg and sperm to form the first cell in what will be many future divisions to complete the physical formation of a new human, genetically different from the pre-born's mother and father. In response to this fact, defenders of the rosy interpretation of current vital statistics may agree to add nine months to the lifespan under consideration. In their view, such an increase is swallowed up in the +/- 2 year error of the average lifetime, anyway. And so it would seem—superficially.

However, if there is life before birth, there is also death before birth—and lots of it. Indeed, WHO and World Almanac demographic statistics for surgical and silent chemical abortions, as well as discarded embryonic humans from IVF and research, paint quite a grim picture. In light of all of this data, average life expectancy, measured **from conception, including pre-natal deaths**, is actually 21 years globally, 17 years for the United States of America, and seven years for Russia , where there are twice as many abortions as live births.

In short:

| | |
|---|---|
| Is American life expectancy today in the mid 70s? | NO! |
| Is this number rising? | NO! |
| Have developed countries higher expected lifetimes than | NO! |

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the third world?

Most modern natural scientists answer "YES" to these three questions by ignoring the reality of pre-born life, even though it is the clear consensus of biologists that human life begins at conception. Why then should these same natural scientists be viewed as credible or objective when measuring past ages?

With these cautions in mind, let us closely examine the "science" of dating methods in two areas of natural science: Biology, which uses the genetic mutation rate of mitochondria, and physics, which uses three types of radio decay rates.

### Mitochondrial DNA (mtDNA)

Mitochondrial DNA is inherited only from the mother, since there is no mixing of male and female mtDNA from generation to generation. All mtDNA changes are the result of non-functional neutral mutations over time, occurring at a constant rate, faster than nuclear DNA. This gives biologists access to a "molecular clock." They just count the number of mutant genes between species to find out when they diverged. Assuming that humans evolved from hominid ancestors, evolutionary biologists use the fossil record to establish the point at which this divergence took place. They then calculate the mutation rate by dividing the number of years since the divergence by the average number of mutations that have taken place in the mtDNA. This technique dates "Mitochondrial Eve" to about 200,000 years ago, the mother of all modern humans (but not necessarily the Biblical Eve). Recently, however, a study by (evolutionary scientists) Parsons et al. (1997) using the mtDNA rate of change of modern humans found a rate more than 20 times faster than the rate calculated from the fossil record! According to Parsons:

> …*our observation of the substitution rate is roughly 20-fold higher than would be predicted from phylogenetic analyses.* ***Using our empirical rate to calibrate the mtDNA molecular clock would result in an age of only ~6,500 y.a., clearly incompatible with the***

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*known age of modern humans.* .... *it remains implausible to explain the known geographic distribution of mtDNA sequence variation by human migration that occurred only in the last ~6,500 years* (emphasis added).*[1]*

Two conclusions can be drawn from this study. One is that setting the biologic clock according to the fossil clock, which was already proven defective by Guy Berthault's sediment deposit experiments,[2] will only lead to another bad chronometer. The second is that, not surprisingly, no further research in using mtDNA mutations as a biologic clock has been published since 1997—despite the astounding (to evolutionary scientists) discovery. Evolutionists were perfectly content to use the mtDNA clock to date events, so long as that clock was artificially based on assumption and speculation and yielded results that conformed to their evolutionary perspective. Then, when actual evidence was collected by which the clock could be set, the whole thing was dismissed because it no longer fit their accepted model. In an attempt to develop a more accurate dating method for evolutionary purposes, evolutionists somehow managed to place Eve perfectly within the framework of the literal historical interpretation of Genesis! Indeed, another alternate genetic clock, the uniformity of the Y chromosome among human males, has given a preliminary age estimate of less than 40,000 years for human males.

**Mutation Contradictions from Population Genetics**

Population genetics sheds additional light on the time required to produce the transformation from a chimp-like hominid to a human being, under the most improbably ideal conditions. According to population geneticist David Plaisted:

Rates of mutation high enough to account for the ape-human split would lead to the rapid death of the species. Even rates of mutation often quoted by biologists would do the same. A lower rate of mutation would make the assumed evolution of apes and humans from a common ancestor impossible. If the rate of mutation really is high, then the human race must be very young and on the way to extinction.[3]

Neo-Darwinists use a rate of positive gene mutation based on fossil dating

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of chimp-to-Adam evolution. But positive mutations that produce the kinds of increases in genetic information required for this transformation have never been observed in any species. Forced mutation experiments on millions of fruit flies and hundreds of trees have yielded the same number of positive mutations—Zero! Forty years ago the evolutionary geneticist J.B.S. Haldane discovered that higher vertebrates such as mammals (organisms with low reproduction) cannot have plausibly evolved within the available time, even according to the conventionally accepted prehistoric chronology. A rapid turnover (or substitution) of mutations into a population incurs a cost that must be paid by the reproduction of the species. Species with low reproduction cannot plausibly pay this cost fast enough to drive evolution at the high rates claimed by evolutionists. Haldane's published analyses show that the evolution of humans from their presumed ape-like ancestors 10 million years ago could incorporate at most 1,667 beneficial nucleotides, far fewer than the number of changes needed to effect a chimpanzee-to-human evolutionary transition.[4]  Rapid evolution in small populations would require an implausibly high ratio of beneficial to harmful mutations. An error catastrophe—leading to extinction—occurs when genetic errors accumulate in a population faster than they can be eliminated.

This situation poses insoluble problems for evolutionary biology. If the mutation rate is high enough for the ape-human split or just the average rate cited by biologists, extinction occurs via negative mutations— producing neither chimps nor men. If the mutation rate is low enough to avoid extinction, then evolution is also rendered impossible. Even after 10 million years at a low rate of mutation, gene conversion would barely be under way. The above logic assumes that there is proof of positive, beneficial mutations over time– contrary to the overwhelming contrary evidence from the lowly fruit fly.[5] The actual vital statistics suggest that the human race is young and degenerating, as Scripture attests.

Disease and Genetic Degradation: Survival of the Least Misfit

Another fallacy of mainstream evolutionary science—besides a rising true life expectancy—is the claim that medical advances have disease and health problems under control. The following statistics belie this position.

Around the world, infectious diseases now cause about 16 million global deaths each year, a result of changes in human behavior and mutations in pathogens. Twenty well-known diseases—including tuberculosis (TB), malaria, and cholera—have reemerged or spread since 1973, often in more virulent and drug-resistant forms. At least 30 previously unknown disease agents have been identified since 1973, including HIV, Ebola, hepatitis C, and Nipah virus, for which no cures are available.

Within the United States, annual infectious disease-related death rates in the United States have nearly doubled to some 170,000 annually after reaching an historic low in 1980. The next major infectious disease threat to the United States may be, like HIV, a previously unrecognized pathogen. Although multi-drug therapies have cut HIV/AIDS deaths by two-thirds to 17,000 annually since 1995, emerging microbial resistance to drugs and continued new infections will sustain the threat. TB, exacerbated by multi-drug resistant strains and HIV/AIDS co-infection, has come back.

**Microbial Adaptation and Resistance**

Infectious disease microbes are constantly micro-evolving. As a result, an expanding number of strains of diseases—such as TB, malaria, and pneumonia—will remain difficult or virtually impossible to treat. Influenza viruses, in particular, are particularly efficient in their ability to survive and genetically change, sometimes into deadly strains. HIV also displays a high rate of genetic mutation that will present significant problems. What follows is a table of virtually annual appearances of new pathogens that have emerged to plague humanity. It includes the new classification of prion, a misshapen protein that destroys the nervous system of both man and beast. West Nile virus is too recent to be listed.

| Examples of Pathogenic Microbes and the Diseases They Cause, Identified Since 1973 | | | |
|---|---|---|---|
| Year | Microbe | Type | Disease |
| 1973 | Rotavirus | Virus | Infantile diarrhea |
| 1977 | Ebola virus | Virus | Acute hemorrhagic fever |
| 1977 | *Legionella pneumophila* | Bacterium | Legionnaires' disease |

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| 1980 | Human T-lymphotrophic virus I (HTLV 1) | Virus | T-cell lymphoma/leukemia |
|---|---|---|---|
| 1981 | Toxin-producing Staphylococcus aureus | Bacterium | Toxic shock syndrome |
| 1982 | *Escherichia coli O157:H7* | Bacterium | Hemorrhagic colitis; hemolytic uremic syndrome |
| 1982 | *Borrelia burgdorferi* | Bacterium | Lyme disease |
| 1983 | Human Immunodeficiency Virus (HIV) | Virus | Acquired Immuno-Deficiency Syndrome (AIDS) |
| 1983 | *Helicobacter pylori* | Bacterium | Peptic ulcer disease |
| 1989 | Hepatitis C | Virus | Parentally transmitted non-A, non-B liver infection |
| 1992 | *Vibrio cholerae O139* | Bacterium | New strain associated with epidemic cholera |
| 1993 | Hantavirus | Virus | Adult respiratory distress syndrome |
| 1994 | Cryptosporidium | Protozoa | Enteric disease |
| 1995 | Ehrlichiosis | Bacterium | Severe arthritis? |
| 1996 | NvCJD | **Prion** | New variant Creutzfeldt-Jakob disease (Mad Cow) |
| 1997 | HVN1 | Virus | Influenza |
| 1999 | Nipah | Virus | Severe encephalitis |

(Source: US Institute of Medicine, 1997; WHO, 1999)

**The Human Degenome?**

According to evolutionary biology, chimp-like creatures in the past marvelously, over millions of years, acquired remarkable increases in genetic information. These increases in genetic information supposedly coded for all of the abilities of modern humans—like human language—which are totally beyond the reach of present-day
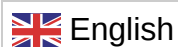
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chimp-like creatures. The trend of man's evolutionary history would seem to promise a bright future characterized by ever-greater advances towards superior health and intelligence. And yet, the human genome seems to have an increasing susceptibility to various maladies.

There are now approximately 5 million cancer deaths worldwide annually. In the United States of America, cancer-related deaths have increased about 60% in 22 years or 3% per annum. Approximately 4 million Americans now have Alzheimer's disease, and 14 million Americans will have AD by 2050 unless a cure or prevention is found.

Darwin claimed that species evolve, and become more fit, eventually replacing prior ones by natural selection. The Environmental Protection Agency claims that a thousand species die out each year. But the same agency does not observe any new species coming into existence! Is the problem microbial adaptation and resistance or human gene degeneration? In reality, the obvious trend among all species is toward degeneration, decay, and loss of genetic information—not toward superior fitness, survivability, and increased genetic information.

### Radioactive Decay: Fast, Medium, and Slow

The mtDNA biological clock indicates that all of the human beings on the earth today are descended from one woman who lived, at the most, tens of thousands—not tens of millions—of years ago. Let us now turn to the second chronometer of evolutionary science—the three decay rates in Physics.

Mainstream theory says radioactive elements were formed by fusion in stellar nurseries that then went "nova" and were ejected into space. These then formed gas clouds that condensed into star systems over millions of years. Contrary evidence given by polonium halos was found by Dr. Robert Gentry who will speak later at this symposium. The halos produced by short half-life decay of Polonium 218 in granite took **less than an hour** to form. According to the standard Big Bang theory, polonium 218 radiohalos should never have been preserved in granite which took millions—if not billions— of years to cool after the earth was eventually formed as a by-product of

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the Big Bang. The standard Big bang has no explanation for "nature's tiny mystery."

## Slow Decay

Let us suppose you find a fossil embedded in cold lava in your backyard and want to date it. You take it to a geology lab at a major university. You are surprised to find that the laboratory cannot run a $C^{14}$ test, since the organic matter has petrified. So a dating test is run using a long half life radio-isotope. To your surprise you also learn that if the laboratory runs multiple tests with different isotopes, the dates will differ significantly and the error will grow with more testing. Excuses will be given that parts of the fossil are contaminated. You conclude, quite logically, that since random errors decrease with repeated testing, the dating method must have a systematic error—either conceptual or built-in. Your last resort will be to date by depth of burial, using the geologic column, based on the same radioactive decay testing that gave conflicting dates originally!

It turns out that all dating ultimately depends on the cosmic uniformitarian principle, a fundamental premise of evolutionary geology. Fossils are normally dated according to their position in the sedimentary layers of the earth on the assumption that these layers were laid down at a fairly constant rate over an extremely long period of time. If radiodating is used on radioactive minerals in the rock, the laboratory assumes that the original amount of the parent radioactive element is known, that the decay took place in a closed system which was not affected by environmental influences, and that the rate of radioactive decay has not changed since the fossil was formed.

When examining a sedimentary fossil, uniformitarian, evolutionary geology compares the sample to standard index fossils, which were dated by their depth in the geologic column. Thus, the cosmological principle is invoked.

When examining an igneous rock, evolutionary geology uses geophysics. The sample is radiodated according to the parent/daughter ratio, assuming uniform decay for ages. Here again, evolutionary geology invokes the cosmological principle.

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If multiple parents/daughters are used and there are age conflicts, evolutionary geologists have recourse to the depth of burial within the alleged geologic column. In other words, they invoke the cosmological principle.

If the laboratory examines an organic sample using geophysics, the sample can be linked with tree rings/ice cores, then dating will be done by assuming uniform annual layers. In other words, the researchers will invoke the cosmological principle.

As a final test, the laboratory may radiodate the $C^{14}$/ $C^{12}$ ratio, assuming a lifetime exposure to uniform $C^{14}$. In this way, too, the researchers at the laboratory will invoke the cosmological principle.

According to the standard radio-dating process, at some point in the past, a mineral grain containing a radioactive parent produces a daughter at a fixed rate. There are no daughter atoms present initially, so the computation is based on the standard exponential law.

Reality is not quite so simple. The daughter's concentration is unknown, mass transport of parent or daughter in or out of the grain may occur during decay, and evidence is steadily accumulating that the decay constant may be variable (a side effect of a variable light speed). The main ideas are summarized below for a single mineral grain.

| | PARENT | | DAUGHTER | |
|---|---|---|---|---|
| | | | | |
| t1 | Np1 | | 0 | |
| . | | | | |
| . | | | | |
| . | +/- Np(t) | | +/- Nd(t) | |

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| | | | | |
|---|---|---|---|---|
| . | | | | |
| . | | | | |
| . | | | | |
| t2 | Np2 | + | Nd$_2$ | = Np$_1$ |

In the ideal case: Np2, Nd2are measured, with the decay rate constant.

In reality:

> The initial number of daughter isotopes is greater than zero: Nd1 > 0

> The amount of parent and daughter types transferred in or out of the sample grain during the decay period is unknown: Np(t) = ? Nd(t) = ?

The decay rate may vary with time, as recent experiments show. This would certainly be true if the speed of light has changed through the ages, as also observed: decay rate(t) = ? CDK ??

This reality is evident in those cases where radioactive dating is applied to samples of known ages, like rocks formed by the Mount St. Helens eruption. Excuses are often given that long-life radio-dating doesn't apply to such short ages, but the argument is specious. Suppose I claim to be able to have a dating method for human ages. I then date President Bush as 286 years old. When told that he is about 230 years younger than that, I say that my method is only valid for people older than 250 years old! So my method fails to predict when a measurement is out of range.

Old age tests applied to recent ages should not detect the presence of any daughter elements. However, this is clearly not the case with [40]Ar in the following table. The tables shows that igneous rock formed less than 30 years ago has been dated in professional radio dating laboratories at ages as old as

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2,800,000 years!

**Excess Argon within Mineral Concentrates from the New Dacite Lava Dome**

|  | $^{40}$K (ppm) | Total Ar (ppm) | $^{40}$Ar* (ppm) | $^{40}$Ar*/$^{40}$K | 'Age' (Ma) |
|---|---|---|---|---|---|
| **'whole rock'** | 1.102 | 0.0018 | 0.0000225 | 0.000020 | 0.35 ± 0.05 |
| **tedder, etc.** | 1.250 | 0.0024 | 0.000025 | 0.000020 | 0.34 ± 0.06 |
| **amphibole,etc** | 0.693 | 0.0027 | 0.000037 | 0.000053 | 0.9 ± 0.2 |
| **pyroxene,etc** | 0.555 | 0.0015 | 0.000054 | 0.000096 | 1.7 ± 0.3 |
| **Pyroxene** | 0.533 | 0.0025 | 0.000087 | 0.000163 | 2.8 ± 0.6 |

Mount St. Helens is not an isolated case of misdating. Huge errors have crept into the dating of rocks from other well-known geological events in recent history:

| Hualalai basalt (Hawaii, AD 1800-1801) | 1.6 ± 0.16 Ma <br> 1.41 ± 0.08 Ma |
|---|---|
| Mt. Etna basalt (Sicily, 122 BC) | 0.25 ± 0.08 Ma |
| Mt. Etna basalt (Sicily, AD 1792) | 0.35 ± 0.14 Ma |
| Mt. Lassen plagioclase (California, AD 1915) | 0.11 ± 0.3 Ma |
| Sunset Crater basalt (Arizona, AD 1064-1065) | 0.27 ± 0.09 Ma <br> 0.25 ± 0.15 Ma |

# Generic Radiometric Dating

The simplest form of isotopic age computation involves substituting three measurements into an equation of four variables, and solving for the fourth. The equation is the one which describes radioactive decay:

$$P_{now} = P_{orig} * 2^{(-\,age/half\,life)}$$

The variables in the equation are:

$P_{now}$ - The quantity of the parent isotope that remains now.
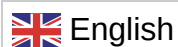
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This is measured directly.

$P_{orig}$ - The quantity of the parent isotope that was originally present. This is computed from the current quantity of parent isotope plus the accumulated quantity of daughter isotope.

halflife - The half-life of the parent isotope. Standard values are used, based on direct measurements.

age - The value computed from the equation and the other three quantities, is the amount of time which has passed.

Solving the equation for "age," and incorporating the computation of the original quantity of parent isotope, we get:

$$age = half\ life * \log_2(1 + D_{now}/P_{now})$$

## Isochrons or Errorchrons?

An "isochron" is a set of data points in a plot which all fall on a line representing a single age ("isochron" comes from: "isos" equal + "chronos" time). The term "errorchron" has been coined for a set of data which are *not* colinear. The best-fit line itself is also sometimes called an "isochron." The plot on which these data points appear is sometimes called an "isochron diagram."

Let P be a parent element that decays into a daughter D (radiogenic) and Di be another isotope of Y not produced by radioactive decay (stable/non-radiogenic). Let x, y, and z refer to their concentrations. Since D and Di are isotopes of the same chemical element, they have similar chemical properties. Initially, let the ratio of y and z be constant, so P begins decaying to D to quantitatively produce $y = c1 * x + c2 * z$ at the end of some time period. Dividing by z leaves $y/z = c1 * x/z + c2$. The ratios x/z and y/z have a linear relationship whose slope (c1) yields the age of the sample. If these ratios are observed to obey such a linear relationship in a series of rocks, then an age can be computed from them.

However, this is not the only way to produce such a linear relationship. Let A and B be two rocks containing only x and y and no z. Suppose A is very old (or appears very old) and B is very young. If A and B become thoroughly mixed. their perceived radiometric age would then be between that of A and B. Now, suppose a mixture of y and z penetrates this mixture of A and B, in some places more than in others, but with a constant ratio of y and z. This will then yield a beautiful isochron (obeys

the isochron equation), but the age given will be meaningless. This can also happen if water removes a constant fraction of x but no y from A, making A appear older, and then the mixture of y and z enters. Another possibility is for A to have a constant concentration of x and y at the beginning, and for more y to enter, making A appear older. Then if a mixture of y and z enters, a nice isochron yielding a false age will be produced. A final possibility is for A to have a constant ratio of x and y at the beginning. Then a lot more y enters by diffusion. Then the rock is heated and mixed so the ratio of x and y is everywhere the same. This makes the rock look much older. Finally, a mixture of y and z enters, different amounts at different places. This will also produce a false, and much too old, isochron. These **five false isochrons** scenarios are not at all implausible, especially when one considers that the daughter element y is often argon, a gas that is relatively mobile in rock.

Isochron dating requires at least four measurements to be taken: x,y,z, C1. In addition, it requires that these measurements be taken from several different objects which all formed at the same time from a common pool of materials.

Now we examine the basic properties of P-D decay that lead to isochron theory. Each pair of measurements is plotted as a data point on a graph. The horizontal-axis of the graph is the ratio of $P$ to $D_i$. The vertical-axis of the graph is the ratio of $D$ to $D_i$. An Rb/Sr isochron plot looks like this:

Rb/Sr isochron plot

$P = {}^{87}Rb$; $I = {}^{87}Sr$; $D_i = {}^{86}Sr$.

The intent of the plot is to assess a correlation between the level of $P$ and any enrichment in $D$ :

explanation  of  X-position  and  Y-position  of
data

Meaning of the plot axes.

If the points are colinear, and the line has a positive slope, it shows an extremely strong correlation between the amount of $P$ in each sample, and the extent to which it is enriched in $D$, relative to $D_i$. This is a necessary consequence, if the additional $D$ is a product of the decay of $P$ in a closed system over time. It is not easily explained, in the general case, in any other way.

$P$ is a different element from D; it will be distributed unequally relative to $D$ & $D_i$ as minerals form. This results in a range of X-values for the data points representing individual minerals. Since the data points have the same Y-value and a range of X-values, they initially fall on a horizontal line:

zero-age isochron intersecting source data point

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Differential migration of elements as minerals form.

A horizontal line represents "zero age." As more time passes and a significant amount of radioactive decay occurs, the quantity of **P** decreases by a noticeable amount in each sample, while the quantity of **D** increases by the same amount. This results in a movement of the data points to the left (decreasing **P** ) and upwards (increasing **D** ). Since each atom of **P** decays to one atom of **D** , the data point for each sample will move along a path with a slope of -1.

Decay occurs in a proportional manner (that is, when 20% of the **P** in one sample has decayed, 20% of the **P** in *every* sample will have decayed). As a result, the data points with the most **P** (the right-most ones on the plot) move the greatest distance per unit time. The data points remain colinear as time passes, but the slope of the line increases:

colinear isochron with positive slope

An additional nice feature of isochron ages is that an "uncertainty" in the age is automatically computed from the fit of the data to a line. A routine statistical operation on the set of data yields both a slope of the best-fit line (an age) and a variance in the slope (an uncertainty in the age). The better the fit of the data to the line, the lower the uncertainty.

If the initial conditions vary from the assumption or if contamination is present, it is nearly certain that the data will indicate the problem by failure to plot on a line. Where the simple P-D pair methods will produce an incorrect age, isochron methods will generally indicate the unsuitability of the object for dating.

Gain or loss of **P** does change the X-values of the data points:

effect of gain/loss of P on data points

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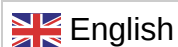
Gain or loss of **P** .

If the isochron line has a distinctly non-zero slope, and a fairly large number of data points, the nearly inevitable result of contamination (failure of the system to remain closed) will be that the fit to a line will be destroyed. If **P** is lost the data points will tend to move varying distances; the different minerals will have varying resistance to loss of **P** , as well as varying levels of **D$_i$** :

effect of a loss of P in all samples

Loss of **P** in all samples.

In the case of Rb/Sr isochron dating, the most common form of isotope migration is a preferential loss of radiogenic daughter ($^{87}$Sr), causing vertical variation.

effect of migration of D

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Gain or loss of **D** .

The end result is that the data are nearly certain not to remain colinear, as seen in the typical isochron experimental plot below. The original top graph has the general pattern of linearity; but the statistical least squares analysis would yield a slope with significant error and an age that is at odds with the geologic column predictions.
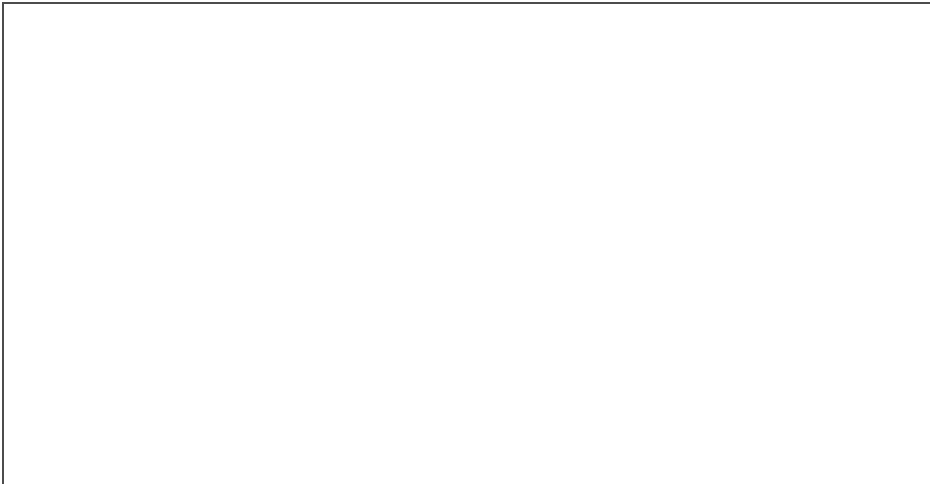


By discarding the top four points as "anomalous/contaminated/ inappropriate/etc.," the bottom plot (actually published) overcomes both obstacles, killing "two birds with one stone."

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### An Analysis of Claims by Evolutionary Geologists

*Evolutionary geologists allege "counter-intuitive" ages—results which indicate an event earlier than the time of crystallization of the sampled object—are usually produced by inappropriate selection of samples.*

> The evolutionary geologist is, however, well practiced in inappropriate selection of samples—a case of "the pot calling the kettle black."

*Evolutionary geologists say isochron interpretation is objective because dishonest practices are immediately recognized as being dishonest and thus discouraged.*

> This ignores the geological frauds of history and the personal motivation to gain collegial approval and research dollars.

*The next person to attempt to replicate the experiment would uncover the fraud.*

> This ignores the unlikely exact correspondence of different samples in their concentration and geological history.

*Outlying data points are regularly reported and almost always plotted on the isochron diagram... but occasionally not included in the computation of the best-fit line. (However this is always made clear in the paper; exclusion of a small percentage of outliers is a reasonably standard statistical practice for improving accuracy of calculations.)*

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John Woodmorappe found that outliers were often discarded as anomalies and not documented.[6]

*Performing multiple isochron plots in search of a "good" one would be outlandishly expensive.*

More common in a single plot is the practice of ignoring non-linear points or those implying the "wrong" age.

*Further tests would likely give the same result as the first, and there would be a very low probability of getting a significantly better plot.*

This is an assumption....*likely give*.... Why not do further tests with the research award, rather than using funds to pursue publicity to secure more grants? Further, why do dates from multiple heterogeneous pairs give wildly spread dates? The isochron experiment is still basically a P-D dating method.

*Negative results are regularly published*.....

Yes, in the creationist press. What is the ratio of REPORTED negative isochron results to positive results in the mainstream press?

# In short, the cycle of inflated claims for isotopic dating methods consists of five steps:

1. A new dating method is developed

2. Sweeping claims are made of its reliability

3. Numerous anomalies surface

4. A new layer of rationalizations is invented to explain away discrepancies

5. Return to 1.

Besides inconsistency, old age radiodating suffers from the following

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fundamental weaknesses:

> Decay rates are assumed constant, when there is evidence of faster decay in the past, decay rates of ions are known to differ from neutral atoms, and the existence of uranium halos hints that there was much more radioactivity in the past.

> Decay rate is dependent on the speed of light, and c **appears** to be declining (CDK). This is seen in the measurement trend of the last 400 years and recent quasar measurements by mainstream astronomer Davies.

> Evolutionists will assert that c is known to seven significant digits and is truly constant. But c has been fixed since the 1960s, when the National Bureau of Standards changed from the dynamic time of celestial motion to atomic time using the cesium clock. Since the atomic frequencies depend on c, all that is being measured is the precision of the instruments.

### Medium Decay: $C^{14}$ summary:

Carbon-14 is produced when cosmic rays knock neutrons out of atomic nuclei in the upper atmosphere. When these fast-moving neutrons hit nitrogen (N-14) at lower altitudes, they convert the nitrogen to carbon-14. The carbon-14 is unstable and eventually decays into nitrogen. However, both carbon-14 and carbon-12 combine with oxygen to form carbon dioxide which finds its way into the cells of plants and animals. While plants and animals are alive and breathing, the ratio of carbon-12 atoms to carbon-14 atoms remains the same in their cells as in the atmosphere. Once the plant or animal dies, however, the carbon-14 atoms decay at a constant rate and are no longer replaced. As a result, the ratio between C14 and C12 changes over time at a constant rate, making it possible to determine the elapsed time since the death of the organism.

Since half of a given amount of C14 will convert to C12 in 5, 730 years (+ or – 40 years), 5, 730 years is said to be the half life of C14. At this rate of decay, any organism that died more than 50,000 years ago should have lost

all of its C14. Recent studies have shown that C14 production has increased in recent times as a result of the weakening of the earth's magnetic field. In addition, a global flood—while it would have destroyed almost all plant and animal life—would not have affected the production of C14 in the atmosphere. Consequently, the C14 level relative to C12 would have increased during the post-flood period. Both of these factors tend to make thousands-of-years-old carbon-tested organic matter test much older than it really is.[7]

In short, an analysis of the $C^{14}$ technique leads to the following observations:

1. There is measurable carbon-14 in material (e.g., fossil fuels) that should be "dead" according to standard evolutionary theory (having a radio-carbon date > of 43,000 years).

2. If the present activity is the residual of life-time absorption at current levels of carbon-14, **an age greater than approximately 10,000 years for life on Earth is eliminated.**

3. Although most easily interpreted within the framework of a "young (less than ten thousand years old) earth," the data cannot prove a young age.

If a short or long age for life on Earth is metaphysically ruled out, no amount of evidence matters. Science then degenerates into an attempt to find evidence to support one's philosophical position, and ceases to be an unbiased search for truth. Then the above data are simply utilized for the sake of argument, or else discounted in an attempt to prevent their use by someone with an opposing view.

## Conclusion

As now used by evolutionary scientists there is virtually no value in radio dating as an objective source of prehistoric chronology. It serves only as a tool of intimidation in the hands of evolutionary propagandists. Those who have been blessed to believe in the absolute Truth of Divine Revelation should hold fast to the sacred sources of truth concerning the origins of man and the universe.

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[1] David A. Plaisted, "Mitochondrial DNA Mutation Rates"

[2] Cf. Guy Berthault, "Geological Time Scale Questioned," elsewhere in these proceedings.

[3] David A. Plaisted, "Population Genetics Made Simple"

[4] Lawrence D. Smart, "Haldane's Dilemma"

[5] Creation-Evolution Encyclopedia, "Fruit Flies Speak Up"

[6] *The Mythology of Modern Dating Methods*, John Woodmorappe, ICR, 1999. In Woodmorappe's highly technical rebuttal of 494 geology references of questionable credibility, the author exposes 52 generally bogus claims: rarity of discrepant dates(14), self-checking of methods(29), agreement on dates, cross-discipline corroboration, concordance of different methods, convergence of earth's age at 4.5 billion years, special pleadings, data manipulation, no standard reliability criteria/norms, new analytic techniques beget new *post-facto* rationalizations, premises assumed true, not proven. 47 "myths" are discussed, including 24 isochron dates, 10 using Argon 39/40, and 13 with U-Pb Zircons. One is introduced to an Orwellian world of geological doublespeak {delayed-uplift ages, cooling ages, thermochronologic data, rejuvenated dates, inherited isochrons. An example of applying such geologic logic to everyday life would be: When picking socks out of a laundry bag of mixed socks, only white ones will be found—the rest are discarded as contaminated.

[7] In an article entitled "Correlation of C-14 Age with Real Time," in the *Creation Research Society Quarterly*, 1992, 29:45-47, R. H. Brown examined anomalous C-14 dating results with a view to discovering why C-14 dating of different samples of organic matter from the same source produced widely different ages. For example, C-14 testing of muscle from a musk ox produced an age of 24,000 years while carbon testing of hair from the same animal produced an age of 17,000 years. By re-calibrating dates of 35,000-40,000 years to coincide with the Biblical date for the global flood (circa 2700 B.C.), the difference between the C-14 results for the ox muscle and the ox hair were brought within the approximate life span of the ox.

**#carbon dating**      **#cosmological principle**      **#evolution**

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#radio dating   #special creation   #theistic evolution

#uniformitarianism

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