

Sunspotters - Something that doesn't interact is changing the unchangeable?



We have been assured over nearly a century of research that one fundamental of nuclear physics is that the rates of radioactive decay are **fixed** and **immutable**.

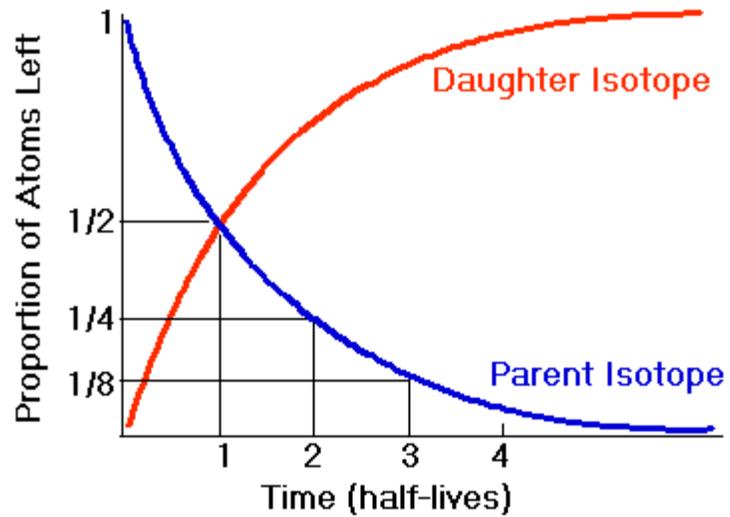
“Since the decay rate is constant, one can use the radioactive decay law and the half-life formula to find the age of organic material, which is known as radioactive dating.”

“The age of the Earth is 4.54 ± 0.05 billion years (4.54×10^9 years $\pm 1\%$). This age is based on evidence from radiometric age dating of meteorite material ... “ (Wiki)

Through the use of mineral isotopes on Earth and from meteorites we have carefully calculated the age for the formation of the Sun, Earth, and Earth's geological process.

Through Carbon 14 dating, we have traced the timeline of life on Earth.

All these dates were precisely set through radioactive isotopic dating and application of established and unvarying fixed rates of radioactive decay.



All was serene and calm until 2006



Then

"Solar flares found to influence rates of radioactive decay!"

Purdue Physicist Jenkins ... A Radioactive Radical

"Jenkins discovered the effect by chance in 2006, when he was watching television coverage of astronauts spacewalking at the International Space Station.

A solar flare had erupted and was thought to possibly pose a threat to the astronauts. He decided to check his equipment and discovered that a change in decay-rate of manganese 54 had preceded the solar flare.”

<http://www.purdue.edu/newsroom/research/2010/100830FischbachJenkinsDec.html>

Over the next 6 years, additional tests of radioactive decay at two different labs with other radioactive isotopes showed a variation in a 33 day recurring pattern which they attribute to the rotation of the sun’s core.

There is also a seasonal pattern based on the distance of the Sun to Earth with the highest rate in January & February and the lowest level in July & June.

Three factors of the Sun Solar Flares, distance to Earth and core rotation ... effect rates of decay.

The seasonal difference in decay rates is only 0.1% and such “minor” differences were ignored in the past because they were “operational errors”.

The year is 1928.

“Hey, Doctor Fleming, you got this green mold on your staph plate!”

“Joseph, clean them up and sterilize them. And don’t bother me about cleaning things up again! You’re a Lab Tech ... just keep the equipment clean!”

Fortunately, this Did Not occur and Penicillin was discovered.

Jenkins did not do what perhaps hundreds of scientists studying radioactivity have done before ... consider a minor variation an “operational error.”

But what can get here so quickly from the Sun’s Core?

The energy of the photons in the sun’s core can take 200,000 years to reach the surface, so the only particle ... *known at this time* ...that would immediately leave the Sun’s core and reach the Earth in a few minutes is our friendly neutrino.

The Neutrino



"Since neutrinos have essentially no mass or charge, the idea that they could be interacting with anything is foreign to physics," Jenkins said. "So, we are saying something that doesn't interact with anything is changing something that can't be changed."

But how could the mild nebbish neutrino interact with the nucleus and change the rate of decay?

"John Bacvall, who was responsible for most of the calculations of solar neutrino abundances, liked to say that **100 billion neutrinos pass through your thumbnail every second**; and yet they are so ethereal that you can look forward to only one or two neutrino-induced reactions in your body during your entire lifetime."

www.physicsforums.com/archive/index.php/t-399368.html

The Impact on Satellites, Astronauts, Radioactive Dating and Physics

Advanced Warning

Solar Flares and CME events have damaged and destroyed operational satellites and pose a risk to astronauts. A strong CME may reach earth in a day or two and having an advanced warning of approximately 93 hours based on monitored rates of decay would greatly enhance the time for protective measures of both men and machines in space.

Perdue has filed a patent application for early detection.

Radioactive Dating

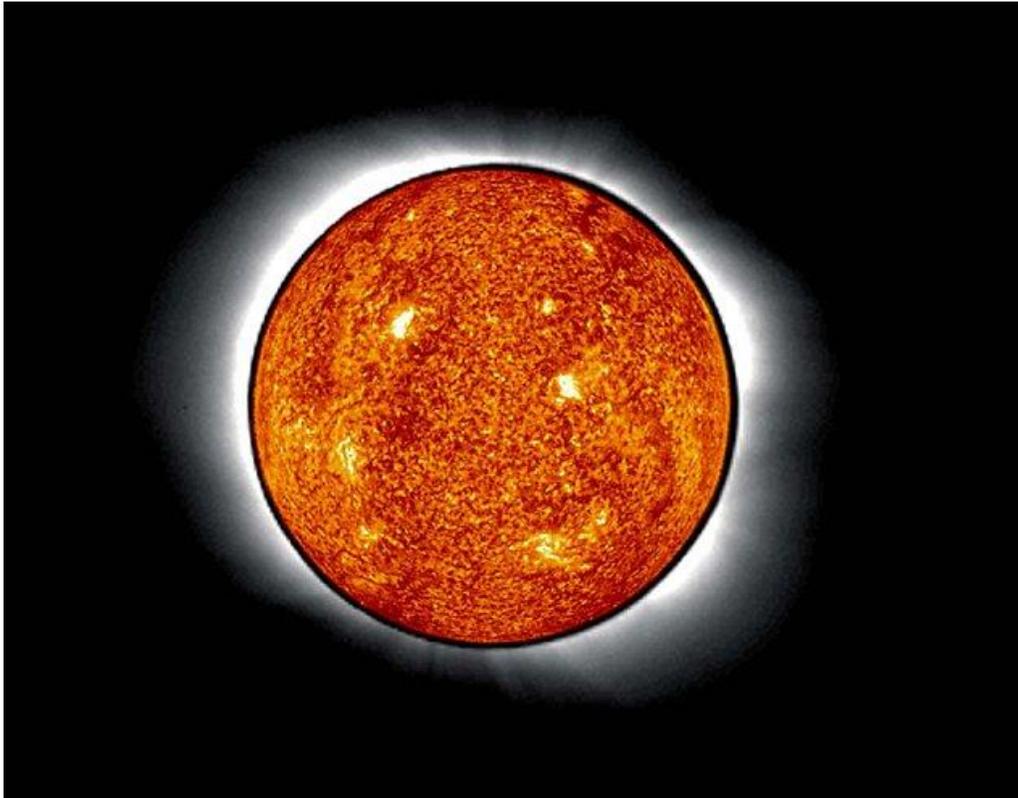
These findings have to call into question the reliability of all radioactive dating.

Even a 0.1% effect over millions and billions of years will have a large cumulative error. This would be compounded as the Sun may have been gone through many phases of solar activity ... less active to very active and back again.

Now with the Dark Force and Dark Energy, physicists will have to struggle with the "Strange Neutrino Effect" or "Unknown Particle/Force Effect."

Do I hear a Future Nobel calling

On a lighter note



Last ... news from my favorite scholarly publication ... The U.K. Daily Mail

New study finds the SUN could be the roundest object ever measured

Mystery surrounds the shape of the Sun - it is just too perfectly round, say scientists.

In fact the Sun turns out to be one of the roundest objects ever measured.

Having no solid surface, the Sun's rotation should make it slightly flattened.

But the new measurements show that the flattening is much smaller than expected.

If the Sun was shrunk to a ball one metre across, its equatorial diameter would be only 17 millionths of a metre larger than the diameter between its poles.

Lead researcher Dr Jeff Kuhn, from the University of Hawaii, said: 'For years we've believed our fluctuating measurements were telling us that the Sun varies, but these new results say something different.'

Researchers thought the Sun would be slightly flattened as it has no solid surface.

Sub-surface solar forces, such as magnetism and turbulence, may be having a more powerful influence on the Sun's shape than was previously thought, said the scientists."

End

Always something new, different and strange from Mother Sol.