Meteorite Dating<br>By Paul Nethercott<br>May 2012

How reliable is radiometric dating? We are repeatedly told that it proves the Earth to be billions of years old. If radiometric dating is reliable than it should not contradict the evolutionary model. According to the Big Bang theory the age of the Universe is 10 to 15 billion years. ${ }^{\mathbf{1}}$ Standard evolutionist publications give the age of the universe as 13.75 Billion years. ${ }^{2,3}$

Standard evolutionist geology views the Earth as being 4.5 billion years old. Here are some quotes from popular text: "The age of the Earth is $4.54 \pm 0.05$ billion years." "The Solar System, formed between 4.53 and 4.58 billion years ago." "The age of 4.54 billion years found for the Solar System and Earth." "A valid age for the Earth of 4.55 billion years." ${ }^{\mathbf{5}, \mathbf{6}}$

Evolutionists give the age of the galaxy as " 11 to 13 billion years for the age of the Milky Way Galaxy." ${ }^{1,7}$ Let us remember this as we look at the following dating as given in secular science journals.

## History Of The Acapulco Meteorite

This meteorite was dated in 1997 by scientists ${ }^{8}$ from France and Germany. Some of the dates ${ }^{9}$ are older than the Solar System. We shall soon see that this is quite common for dating these rocks.

Table 1

| Maximum Age | $\mathbf{1 1 , 4 2 1}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{3 , 4 8 1}$ | Million Years |
| Average Age | $\mathbf{4 , 9 6 4}$ | Million Years |
| Age Difference | $\mathbf{7 , 9 4 0}$ | Million Years |
| Difference | $\mathbf{3 2 8 \%}$ | Percent |
| Standard Deviation | $\mathbf{1 , 7 2 3}$ | Million Years |

## Potassium Argon Dating of Iron Meteorites

This article summarised meteorite dating in $1967 .{ }^{10}$ Even 40 years later things are no better. In the opening paragraph he states that the iron meteorite from Weekeroo Station is date at ten billion years old. He then continues: "The formation or solidification ages of iron meteorites have never been well determined." ${ }^{11}$ He then cites earlier dating which produced an age of seven billion years. ${ }^{12}$ The author concludes with the following remark: "The ages found by us are typical of the great ages found for most iron meteorites. From these, in conjunction with the Strontium: Rubidium data of Wasserburg et al. on silicate inclusions in this meteorite, we conclude that the potassium: argon dating technique as applied to iron meteorites gives unreliable results." ${ }^{13}$

Table 2

| Meteorite | Age |
| :---: | :---: |
| Sample | Billion Years |
| Neutron Activation | 10.0 |
| Stoenner and Zahringer | 7.0 |
| Muller and Ziihringer's | 6.3 |
| Wasserburg, Burnett | 4.7 |
| K-1 | 8.5 |
| K-2 | 9.3 |
| B-1 | 6.5 |
| G-1 | 10.4 |

## Pb Isotopic age of the Allende Chondrules

The meteorite was dated in 2007 using the ${ }^{206} \mathrm{~Pb} /{ }^{238} \mathrm{U}$ dating method. ${ }^{14}$ Over ten dates older than the age of the evolutionist age of the Solar System were produced and one was older [Ten Billion years] than the age of the galaxy. ${ }^{15}$

Table 3

| Maximum Age | $\mathbf{1 0 , 0 6 6}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{1 , 7 9 9}$ | Million Years |
| Average Age | $\mathbf{4 , 5 0 9}$ | Million Years |
| Age Difference | $\mathbf{8 , 2 6 7}$ | Million Years |
| Percentage Difference | $\mathbf{5 5 9 \%}$ | Percent |
| Standard Deviation | $\mathbf{1 , 6 4 0}$ | Million Years |

## Rhenium-187-Osmium-187 in Iron Meteorites

Scientists from France used both ${ }^{87} \mathrm{Sr} /{ }^{86} \mathrm{Sr}$ and Rhenium-Osmium method were used to date this meteorite in $1998 .{ }^{16}$ Dates in the essay ${ }^{17}$ of the Canyon Diablo meteorite vary from one to fourteen billion years old. There is a $1,200 \%$ difference between the youngest and oldest date obtained for the one rock.

Table 4

| Meteorite | Age |
| :--- | :---: |
| Name | Billion Years |
| Canyon Diablo |  |
| Troilite 4 | 1.13 |
| Leach Acetone | 5.73 |
| Leach H,O | 8.31 |
| Troilite dissolved | 10.43 |
| Metal 1 | 13.7 |

## Ar-39/Ar-40 Dating of Mesosiderites

This was dated in 1990 by Scientists from the NASA Johnson Space Center, Houston, Texas. ${ }^{18}$ All of the eleven meteorites dated gave ages older than the Solar System and three dated as being as old, or even older than the evolutionist age of the galaxy. ${ }^{19}$ According to one table the supposed true age is just 3.5 billion years old. ${ }^{20}$

Table 5

| Meteorite | Maximum | Minimum | Age Difference | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Name | Billion Years | Billion Years | Billion Years | Difference |
| 1. Emery | 9.08 | 3.31 | 5.77 | $274 \%$ |
| 2. Estherville | 13.96 | 3.18 | 10.78 | $438 \%$ |
| 3. Hainholz | 5.48 | 1.55 | 3.93 | $353 \%$ |
| 4. Lowicz | 9.93 | 2.92 | 7.01 | $340 \%$ |
| 5. Morristown | 7.92 | 3.60 | 4.32 | $220 \%$ |
| 6. Mount Padbury | 5.52 | 3.49 | 2.03 | $158 \%$ |
| 7. Patwar Basalt | 6.14 | 1.80 | 4.34 | $341 \%$ |
| 8. Patwar Gabbro | 8.43 | 2.67 | 5.76 | $315 \%$ |
| 9. QUE-86900 | 10.92 | 3.24 | 7.68 | $337 \%$ |
| 10. Simondium | 9.17 | 3.27 | 5.90 | $280 \%$ |
| 11. Veramin | 13.13 | 2.71 | 10.42 | $484 \%$ |

## 40Ar-39Ar Chronology

Dated in 2009 by scientists ${ }^{21}$ from Germany and Russia, these meteorite samples gave astounding results. Many dates were older than the evolutionist age of the Solar System, older than the galaxy and older than the Big Bang. ${ }^{22}$ Most age results were hundreds or thousands of percent discordant.

Table 6

| Sample | Maximum | Minimum | Age Difference | Percent |
| :--- | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| Table A01. Dhofar 019 whole rock | $\mathbf{1 1 , 6 7 9}$ | 737 | $\mathbf{1 0 , 9 4 2}$ | $\mathbf{1 , 5 8 4 \%}$ |
| Table A02. Dhofar 019 maskelynite | $\mathbf{1 0 , 5 2 1}$ | $\mathbf{8 1 8}$ | $\mathbf{9 , 7 0 3}$ | $\mathbf{1 , 2 8 6 \%}$ |
| Table A03. Dhofar 019 pyroxene | $\mathbf{1 0 , 7 3 0}$ | $\mathbf{8 0 4}$ | $\mathbf{9 , 9 2 6}$ | $\mathbf{1 , 3 3 4 \%}$ |
| Table A04. Dhofar 019 olivine | $\mathbf{1 0 , 4 8 7}$ | $\mathbf{1 , 7 7 8}$ | $\mathbf{8 , 7 0 9}$ | $\mathbf{5 8 9 \%}$ |
| Table A05. Dhofar 019 opaque | $\mathbf{1 4 , 9 1 7}$ | $\mathbf{4 , 4 2 0}$ | $\mathbf{1 0 , 4 9 7}$ | $\mathbf{3 3 7 \%}$ |
| Table A06. SaU 005 whole rock | $\mathbf{7 , 1 8 4}$ | $\mathbf{5 6 8}$ | $\mathbf{6 , 6 1 6}$ | $\mathbf{1 , 2 6 4 \%}$ |
| Table A07. SaU 005 glass | $\mathbf{6 , 2 3 5}$ | $\mathbf{3 , 2 4 7}$ | $\mathbf{2 , 9 8 8}$ | $\mathbf{1 9 2 \%}$ |
| Table A08. SaU 005 maskelynite | $\mathbf{7 , 4 3 2}$ | $\mathbf{1 , 3 4 4}$ | $\mathbf{6 , 0 8 8}$ | $\mathbf{5 5 2 \%}$ |
| Table A10. SaU 005 olivine | $\mathbf{1 3 , 9 7 9}$ | $\mathbf{3 , 8 3 9}$ | $\mathbf{1 0 , 1 4 0}$ | $\mathbf{3 6 4 \%}$ |
| Table A11. Shergotty whole rock | $\mathbf{8 , 5 4 2}$ | $\mathbf{1 , 1 1 2}$ | $\mathbf{7 , 4 3 0}$ | $\mathbf{7 6 8 \%}$ |
| Table A15. Zagami whole rock | $\mathbf{6 , 0 6 4}$ | $\mathbf{9 4}$ | $\mathbf{5 , 9 7 0}$ | $\mathbf{6 , 4 5 1 \%}$ |
| Table A16. Zagami maskelynite | $\mathbf{5 , 7 3 3}$ | $\mathbf{2 3 8}$ | $\mathbf{5 , 4 9 5}$ | $\mathbf{2 , 4 0 8 \%}$ |
| Table A18. Zagami opaque | $\mathbf{7 , 7 0 7}$ | $\mathbf{2 9 0}$ | $\mathbf{7 , 4 1 7}$ | $\mathbf{2 , 6 5 7 \%}$ |
| Table A9. SaU 005 pyroxene | $\mathbf{1 2 , 8 4 5}$ | $\mathbf{1 , 3 5 4}$ | $\mathbf{1 1 , 4 9 1}$ | $\mathbf{9 4 8 \%}$ |

## Shocked Meteorites: Argon-40/Argon-39

Dated in 1997 by scientists ${ }^{23}$ from Germany and France, these meteorite samples gave astounding results also. Many dates were older than the age of the Solar System, older than the galaxy and older than the Big Bang. ${ }^{24}$ Most age results that were hundreds or thousands of percent discordant.

Table 7

| Sample | Maximum | Minimum | Difference | Percent |
| :---: | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| A. Rose City (H5/S6) host rock | 4,766 | 193 | 4,573 | 2,469 |
| B. Rose City (H5/S6) melt | 4,529 | 2,126 | 2,403 | 213 |
| C. Rose City (H5/S6) host rock \#1 | 3,876 | 231 | 3,645 | 1,678 |
| D. Rose City (H5/S6) host rock \#2 | 3,259 | 293 | 2,966 | 1,112 |
| E. Travis County (H5/S4) whole rock | 3,614 | 295 | 3,319 | 1,225 |
| F. Yanzhuang (H6/S6) host rock | 5,598 | 65 | 5,533 | 8,612 |
| G. Yanzhuang (H6/S6) melt fragment | 10,217 | 1,902 | 8,315 | 537 |
| H. Yanzhuang (H6/S6) melt vein | 7,016 | 1,314 | 5,702 | 534 |
| I. Alfianello (L6/S5) whole rock | 3,470 | 968 | 2,502 | 358 |
| J. Bluff (L6/S6) host rock | 13,348 | 506 | 12,842 | 2,638 |
| K. Bluff (L6/S6) melt | 3,773 | $554$ | 3,219 | 681 |
| L. Mbale (L5-6) whole rock | 3,531 | 466 | 3,065 | 758 |
| M. McKinney (L4/S4-5) whole rock | 1,821 | 499 | 1,322 | 365 |
| N. Ness County (L6/S6) host rock \#I | 5,052 | 987 | 4,065 | 512 |
| O. Ness County (L6/S6) host rock \#2 | 6,668 | 1,997 | 4,671 | 334 |
| P. Paranaiba (L6/S6) host mk \#I | 3,332 | 453 | 2,879 | 736 |
| Q. Paranaiba (L6/s6) host rock \#2 | 5,593 | 3,110 | 2,483 | 180 |
| R. Taiban (L5/S6) host rock | 2,845 | 492 | 2,353 | 578 |
| S. Taiban (L5/S6) melt | 1,435 | 156 | 1,279 | 920 |
| T. Walters (L6/S4) host rock | 3,452 | 1,592 | 1,860 | 217 |
| U. Walters (L6/S4) melt | 4,074 | 2,026 | 2,048 | 201 |
| V. Beeler (LU/S4) host rock \#I | 6,466 | 798 | 5,668 | 810 |
| W. Beeler (LL6/S4) host rock \#2 | 6,609 | 1,491 | 5,118 | 443 |
| X. ALHA 81011 (eucrite) clast | 3,818 | 375 | 3,443 | 1,018 |
| Y. ALHA 81011 (eucrite) melt | 2,827 | 244 | 2,583 | 1,159 |

## Potassium-Argon age of Iron Meteorites

If we compare the dates below with the previous two tables [Tables 6 and 7] we see that dating done on meteorites has not improved in fifty years! The dates below [Table 8] were dating done in 1958 by scientists from Brookhaven National Laboratory, Upton, New York. ${ }^{25}$ These dates ${ }^{26}$ are just as stupid as the previous two tables. The choice of 4.5 billion years as an "absolute" value is purely and arbitrary choice.

## Meteorite Dating

Table 8

| Meteorite | Age |
| :---: | :---: |
| K-Ar Dating | Billion Years |
| Mt. Ayliff | 6.9 |
| Arispe | 6.8 |
| H. H. Ninninger | 6.9 |
| Carbo | 8.4 |
| Canon Diablo I | 8.5 |
| Canon Diablo I | 6.9 |
| Canon Diablo I | 6.6 |
| Canon Diablo I | 5.3 |
| Canon Diablo II | 13 |
| Canon Diablo II | 11 |
| Canon Diablo II | 10.5 |
| Canon Diablo II | 12 |
| Toluca I | 5.9 |
| Toluca I | 7.1 |
| Toluca II | 10 |
| Toluca II | 10.8 |
| Toluca II | 8.8 |

## The Allende and Orgueil Chondrites

This rock was dated in 1976 by scientists from the United States Geological Survey, Denver, Colorado. ${ }^{27}$ Six were dated as being over ten billion years old. ${ }^{28}$ Two were dated as being as old as the Big Bang explosion. ${ }^{28}$ Fifty three dates were over five billion years. ${ }^{28}$ Below [Tables 9 and 10] we can see the strong discordance between the ${ }^{208} \mathrm{~Pb} /{ }^{232} \mathrm{Th}$ and ${ }^{206} \mathrm{~Pb} /{ }^{238} \mathrm{U}$ dating methods

Table 9

| Pb-208/Th-232 |  |  |
| :---: | :---: | :---: |
| Maximum Age | 14.40 | Billion Years |
| Minimum Age | 4.81 | Billion Years |
| Average Age | 6.40 | Billion Years |
| Age Difference | 9.59 | Billion Years |
| Difference | $299.38 \%$ | Percent |
| Standard Deviation | 3.37 | Billion Years |

Table 10

| Pb-206/U-238 |  |  |
| :---: | :---: | :---: |
| Maximum Age | 9.86 | Billion Years |
| Minimum Age | 3.91 | Billion Years |
| Average Age | 6.02 | Billion Years |
| Age Difference | 5.95 | Billion Years |
| Difference | $252.17 \%$ | Percent |
| Standard Deviation | 1.45 | Billion Years |

## Precise U-Pb dating of Chondrites

This dating was done in 2005 by scientists from USA and Canada. ${ }^{29}$ Five dates were over five billion years old. ${ }^{30}$
Table 11

| Maximum Age | 6,473 | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{4 , 2 4 9}$ | Million Years |
| Average Age | $\mathbf{4 , 6 7 5}$ | Million Years |
| Age Difference | $\mathbf{2 , 2 2 4}$ | Million Years |
| Difference | $\mathbf{1 5 2 \%}$ | Percent |

## U-Pb Ages of Angrites

This dating was done in 2007 by scientists from Australia and Canada. ${ }^{31}$ Eight dates were older than the evolutionist age of the Solar System. ${ }^{32}$

Table 12

| Sample | Pb-206/U-238 |
| :---: | :---: |
| Name | Million Years |
| Angra dos Reis |  |
| 4W3 | $\mathbf{5 , 5 3 5}$ |
| 5W3 | $\mathbf{5 , 6 5 8}$ |
| Lewis Cliff 86010 |  |
| 10W3a | $\mathbf{6 , 0 7 2}$ |
| 11W3 | $\mathbf{6 , 6 2 5}$ |
| D'Orbigny |  |
| 15R | $\mathbf{4 , 8 4 2}$ |
| 16Ra | $\mathbf{4 , 8 9 3}$ |
| 17R | $\mathbf{4 , 6 9 5}$ |
| 18R | $\mathbf{4 , 9 7 2}$ |
| 19R | $\mathbf{5 , 0 8 0}$ |
| 20R | $\mathbf{4 , 9 5 7}$ |
| 21W3 | $\mathbf{5 , 4 7 1}$ |
| 22W3 | $\mathbf{5 , 2 9 1}$ |
| 23W3 | $\mathbf{5 , 5 6 8}$ |

## Argon Diffusion Properties

Dating done in 1980 of various meteorites gave many discordant values. ${ }^{32}$ Six were dated as older than the Solar System. ${ }^{33}$
Table 13

| Meteor's | Maximum | Minimum | Percentage |
| :---: | :---: | :---: | :---: |
| Name | Billion Years | Billion Years | Difference |
| Wellman | 5.2 | 3.737 | $139 \%$ |
| Wickenburg | 3.005 | 0.568 | $\mathbf{5 2 9 \%}$ |
| Shaw | 5.15 | 4.17 | $123 \%$ |
| Louisville | 5.5 | 0.51 | $1,078 \%$ |
| Arapahoe | 9.71 | 0.89 | $1,091 \%$ |
| Farmington | 3.7 | 0.511 | $\mathbf{7 2 4 \%}$ |
| Lubbock | 9.4 | 0.12 | $\mathbf{7 , 8 3 3 \%}$ |
| Orvinio | 8.78 | 0.764 | $1,149 \%$ |

## Meteorite Dating

## U-Th-Pb Dating of Abee E4 Meteorite

This dating was done in 1982 by scientists from the NASA, Johnson Space Center, Houston Texas and the U.S. Geological Survey, Denver, Colorado. ${ }^{35}$ The two table below [Table 14, 15] are a summary of Argon dating done on different meteorite samples. ${ }^{36}$ Both sample record dates older than the evolutionist age of the solar system. The original article has undated ${ }^{207} \mathrm{~Pb}{ }^{206} \mathrm{~Pb}$ ratios. If we run the through Isoplot ${ }^{37}$ we find the ratios ${ }^{38,39}$ give the results in tables 16 and 17. All are much older than the evolutionist age of the solar system.

Table 14

| Abee clast 2, 2, 05 |  |  |
| :---: | :---: | :---: |
| Maximum Age | $\mathbf{7 , 2 0 0}$ | Million Years |
| Minimum Age | $\mathbf{3 , 9 9 0}$ | Million Years |
| Average Age | $\mathbf{4 , 6 4 0}$ | Million Years |
| Age Difference | $\mathbf{3 , 2 1 0}$ | Million Years |
| Difference | $\mathbf{1 8 0 \%}$ | Percent |
| Standard Deviation | $\mathbf{8 4 0}$ | Million Years |

Table 15
Abee clast 3, 3, 06

| Maximum Age | $\mathbf{8 , 9 0 0}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{3 , 5 8 0}$ | Million Years |
| Average Age | $\mathbf{4 , 6 1 0}$ | Million Years |
| Age Difference | $\mathbf{5 , 3 2 0}$ | Million Years |
| Difference | $\mathbf{2 4 8 \%}$ | Percent |
| Standard Deviation | $\mathbf{1 , 3 6 0}$ | Million Years |

Table 16

| Meteorite | Pb-206/207 | Pb-206/207 |
| :---: | :---: | :---: |
| Name | Ratio | Age |
| Abee 1 | 1.0992 | 5,370 |
|  | 1.0945 | 5,364 |
|  | 1.0947 | 5,364 |
|  | 1.0330 | 5,283 |
|  |  |  |
| Abee 2 | 1.1000 | 5,371 |
|  | 1.0966 | 5,367 |
|  | 0.8958 | 5,082 |
|  |  |  |
| Abee 3 | 1.0976 | 5,368 |
|  | 1.0967 | 5,367 |
|  | 1.0708 | 5,333 |

Table 17

| Meteorite | Pb-207/206 | Pb-207/206 |
| :---: | :---: | :---: |
| Name | Ratio | Age |
| Abee 1 | 1.0993 | 5,370 |
|  | 1.1005 | 5,372 |
|  | 1.0994 | 5,370 |
|  |  |  |
| Abee 2 | 1.1005 | 5,372 |
|  | 1.0991 | 5,370 |
|  |  |  |
| Abee 3 | 1.0999 | 5,371 |
|  | 1.0993 | 5,370 |
|  |  |  |
| Indarch | 1.1005 | 5,372 |
|  |  |  |
| St. Sauveur | 0.7015 | 4,734 |
|  |  |  |
| Canyon Diablo | 1.1060 | 5,379 |

## 39Ar/40Ar Ages of Eucrites

These samples were dated in 2003 by scientists from the NASA Johnson Space Center, Houston, Texas, and the Lockheed-Martin Corporation, Houston, Texas. ${ }^{40}$ Ten of the meteorites were dated as being over five billion years old. ${ }^{41}$

Table 18

| Meteorite | Maximum | Minimum | Difference | Percent |
| :---: | :---: | :---: | :---: | :---: |
| Sample | Million Years | Million Years | Million Years | Difference |
| A. OUE 97053,8 | 9,669 | 3,749 | 5,920 | 257\% |
| B. GRA 98098,26 WR | 7,008 | 3,239 | 3,769 | 216\% |
| C. PCA - 82502,81 | 5,431 | 3,300 | 2,131 | 164\% |
| D. PCA - 91007,26 | 4,460 | 1,560 | 2,900 | 285\% |
| E. Caldera | 4,493 | 2,819 | 1,674 | 159\% |
| F. Asuka-881388,55 | 4,853 | 3,250 | 1,603 | 149\% |
| G. Asuka-881467,42 | 4,465 | 202 | 4,263 | 2,210\% |
| H. GRO - 95533,7 | 4,096 | 2,823 | 1,273 | 145\% |
| I. OUE - 97014,5 | 4,553 | 2,947 | 1,606 | 154\% |
| J. Moama | 4,484 | 866 | 3,618 | 517\% |
| K. EET - 87520 | 5,481 | 2,004 | 3,477 | 273\% |
| L. Moore County | 6,742 | 1,827 | 4,915 | 369\% |
| M. Serra de Mage | 6,100 | 499 | 5,601 | 1222\% |
| N. EET -87548 | 3,674 | 1,738 | 1,936 | 211\% |
| O. ALH -85001,32 | 4,754 | 3,097 | 1,657 | 153\% |
| P. Piplia Kalan | 4,284 | 162 | 4,122 | 2644\% |
| Q. Sioux County | 4,513 | 2,189 | 2,324 | 206\% |
| R. Asuka-87272,49 | 3,652 | 342 | 3,310 | 1067\% |
| S. Macibini Glass | 5,788 | 2,621 | 3,167 | 220\% |
| T. QUE - 94200,13 | 3,724 | 3,169 | 555 | 117\% |
| U. EET - 87509,24 | 7,496 | 4,026 | 3,470 | 186\% |
| V. EET - 87509,71 | 4,449 | 3,558 | 891 | 125\% |
| W. EET -87509,74 | 4,645 | 873 | 3,772 | 532\% |
| X. EET - 87531,21 | 4,176 | 3,301 | 875 | 126\% |
| Y. EET - 87503,53 | 5,209 | 3,568 | 1,641 | 145\% |
| Z. EET - 87503,23 | 5,324 | 2,294 | 3,030 | 232\% |

## Argon-39/Argon-40 Ages

These samples were dated in 2003 by scientists from the NASA Johnson Space Center, Houston, Texas, and the Lockheed-Martin Corporation, Houston, Texas. ${ }^{42}$ The Monahans chondrite and halite was dated in 2001 as being over eight billion years old. ${ }^{43}$

Table 19

| Maximum Age | $\mathbf{8 , 0 5 8}$ | Million Years |
| :---: | ---: | :---: |
| Minimum Age | $\mathbf{3 , 8 9 9}$ | Million Years |
| Average Age | $\mathbf{4 , 4 7 4}$ | Million Years |
| Age Difference | $\mathbf{4 , 1 5 9}$ | Million Years |
| Difference | $\mathbf{2 0 6 \%}$ | Percent |

## Rb-Sr Ages Of Iron Meteorites

These samples were dated in 1967 by the California Institute of Technology, Pasadena, California. ${ }^{44}$ Even after 40 years of research and the massive improvement in laboratory equipment and computer technology, things today are just as bad as back then! Fourteen of the dates are five billion years or more. ${ }^{45}$

Table 20

| Meteorite | Age |
| :---: | :---: |
| Rb-Sr Dating | Billion Years |
| Four Corners AM 1 | 8.4 |
|  | 9.3 |
|  | 9.1 |
|  | 9.1 |
|  | 8.5 |
|  | 8.2 |
| Four Corners AM 2-B1 | 5.0 |
|  | 5.1 |
|  | 4.8 |
| Four Corners AM 2-B6 | 5.0 |
| Four Corners H-1 | 5.0 |
| Four Corners H-3 | 4.9 |
| Four Corners N-1 | 5.2 |
| Linwood H-B1 | 5.1 |
| Odessa N1-8 | 4.9 |
|  | 4.8 |
| Toluca N-A3 | 5.0 |
|  | 4.7 |
|  | 4.9 |
|  | 4.9 |
|  | 5.1 |

## 40-Ar / 39-Ar Ages of Allende

Scientist from the Max-Planck-Institute, Heidelberg, Germany, dated these samples in 1980. ${ }^{46}$ Seven samples were dated as being over five billion years old. ${ }^{47}$

Table 21

| Sample | Maximum | Minimum | Difference | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| Sample 01 | $\mathbf{4 , 4 5 5}$ | $\mathbf{2 , 4 5 2}$ | $\mathbf{2 , 0 0 3}$ | $\mathbf{1 8 1 \%}$ |
| Sample 02 | $\mathbf{5 , 0 6 7}$ | $\mathbf{3 , 0 2 7}$ | $\mathbf{2 , 0 4 0}$ | $\mathbf{1 6 7 \%}$ |
| Sample 03 | $\mathbf{4 , 9 1 9}$ | $\mathbf{4 , 0 9 2}$ | $\mathbf{8 2 7}$ | $\mathbf{1 2 0 \%}$ |
| Sample 04 | $\mathbf{4 , 9 3 9}$ | $\mathbf{4 , 3 6 3}$ | $\mathbf{5 7 6}$ | $\mathbf{1 1 3 \%}$ |
| Sample 05 | $\mathbf{4 , 6 9 1}$ | $\mathbf{2 , 2 4 8}$ | $\mathbf{2 , 4 4 3}$ | $\mathbf{2 0 8 \%}$ |
| Sample 06 | $\mathbf{4 , 9 4 3}$ | $\mathbf{4 , 1 0 2}$ | $\mathbf{8 4 1}$ | $\mathbf{1 2 0 \%}$ |
| Sample 07 | $\mathbf{4 , 8 3 5}$ | $\mathbf{4 , 1 6 6}$ | $\mathbf{6 6 9}$ | $\mathbf{1 1 6 \%}$ |
| Sample 08 | $\mathbf{4 , 7 7 6}$ | $\mathbf{4 , 2 0 7}$ | $\mathbf{5 6 9}$ | $\mathbf{1 1 3 \%}$ |
| Sample 09 | $\mathbf{5 , 0 0 4}$ | $\mathbf{3 , 6 8 2}$ | $\mathbf{1 , 3 2 2}$ | $\mathbf{1 3 5 \%}$ |
| Sample 10 | $\mathbf{4 , 5 0 5}$ | $\mathbf{1 , 8 7 1}$ | $\mathbf{2 , 6 3 4}$ | $\mathbf{2 4 0 \%}$ |
| Sample 11 | $\mathbf{4 , 7 0 7}$ | $\mathbf{3 , 6 3 1}$ | $\mathbf{1 , 0 7 6}$ | $\mathbf{1 2 9 \%}$ |
| Sample 12 | $\mathbf{5 , 6 4 1}$ | $\mathbf{4 , 3 3 0}$ | $\mathbf{1 , 3 1 1}$ | $\mathbf{1 3 0 \%}$ |
| Sample 13 | $\mathbf{4 , 5 4 9}$ | $\mathbf{4 , 3 9 6}$ | $\mathbf{1 5 3}$ | $\mathbf{1 0 3 \%}$ |
| Sample 19 | $\mathbf{5 , 5 9 0}$ | $\mathbf{4 , 1 1 0}$ | $\mathbf{1 , 4 8 0}$ | $\mathbf{1 3 6 \%}$ |
| Sample 20 | $\mathbf{5 , 8 1 2}$ | $\mathbf{4 , 3 6 7}$ | $\mathbf{1 , 4 4 5}$ | $\mathbf{1 3 3 \%}$ |
| Sample 21 | $\mathbf{5 , 7 8 4}$ | $\mathbf{4 , 2 5 6}$ | $\mathbf{1 , 5 2 8}$ | $\mathbf{1 3 5 \%}$ |
| Sample 23 | $\mathbf{7 , 4 6 0}$ | $\mathbf{3 , 9 6 7}$ | $\mathbf{3 , 4 9 3}$ | $\mathbf{1 8 8 \%}$ |

## The Fossil LL6 Chondrite

These meteorite fragments were dated in 2010 by scientists from Australia, South Africa, England and Finland. ${ }^{48}$ Some dates are over 4,000 percent discordant. ${ }^{49}$ The oldest dates are as old as the evolutionist age of the galaxy. ${ }^{49}$

Table 22

| Sample | Maximum Age | Minimum Age | Age Difference | Percent |
| :---: | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| A | $\mathbf{2 , 0 6 5}$ | 164 | $\mathbf{1 , 9 0 2}$ | $\mathbf{1 , 2 6 3 \%}$ |
| B | $\mathbf{2 , 8 4 9}$ | $\mathbf{9 2 4}$ | $\mathbf{1 , 9 2 5}$ | $\mathbf{3 0 8 \%}$ |
| C | $\mathbf{2 , 0 4 3}$ | 177 | $\mathbf{1 , 8 6 7}$ | $\mathbf{1 , 1 5 7 \%}$ |
| D | $\mathbf{7 , 1 1 9}$ | $\mathbf{1 7 4}$ | $\mathbf{6 , 9 4 5}$ | $\mathbf{4 , 0 8 2 \%}$ |
| E | $\mathbf{3 , 8 8 9}$ | $\mathbf{2 4 9}$ | $\mathbf{3 , 6 4 0}$ | $\mathbf{1 , 5 6 3 \%}$ |
| F | $\mathbf{1 1 , 2 5 0}$ | $\mathbf{5 , 4 7 5}$ | $\mathbf{5 , 7 7 5}$ | $\mathbf{2 0 5 \%}$ |

## K/Ar Age Determinations of Iron Meteorites

This was dated in 1968 and produced ages between 1.5 and 7.4 billion years. ${ }^{50}$ Eight dates were older than the age of the Solar System. ${ }^{51}$ Comparing dating forty years ago with the latest dating techniques shows no improvement.

Table 23

| Meteorite | Maximum | Minimum | Difference | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| K-Ar Dating | Billion Years | Billion Years | Billion Years | Difference |
| Carthage 527 | 6.25 | 3.65 | 2.60 | $171.23 \%$ |
| Odessa 485 | 7.40 | 4.20 | 3.20 | $176.19 \%$ |
| Tombigbee River 602 | 6.35 | 4.85 | 1.50 | $130.93 \%$ |

## The Peace River Shocked M Chondrite

The meteorite was dated by scientists from the Physics Department, Sheffield University, United Kingdom. ${ }^{52}$ The dates listed in the original article ${ }^{53}$ are much older than the evolutionist age of the solar system. This was done in 1988. If you compare table 23 and table 24 in my essay you will see that after 20 years of research the dating is just as bad as day one.

Table 24

| Sample | Maximum | Minimum | Difference | Percent |
| :---: | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| TABLE 1A | $\mathbf{3 , 1 7 6}$ | $\mathbf{1 9 0}$ | $\mathbf{2 , 9 8 6}$ | $\mathbf{1 6 7 2 \%}$ |
| TABLE 1B | $\mathbf{5 , 0 0 6}$ | $\mathbf{4 2 2}$ | $\mathbf{4 , 5 8 4}$ | $\mathbf{1 1 8 6 \%}$ |
| TABLE 2 | $\mathbf{6 , 1 3 0}$ | $\mathbf{9 5 0}$ | $\mathbf{5 , 1 8 0}$ | $\mathbf{6 4 5 \%}$ |
| TABLE 4 | $\mathbf{2 , 5 1 5}$ | $\mathbf{5 0 0}$ | $\mathbf{2 , 0 1 5}$ | $\mathbf{5 0 3 \%}$ |
| TABLE 5 | $\mathbf{7 , 1 0 0}$ | $\mathbf{5 1 0}$ | $\mathbf{6 , 5 9 0}$ | $\mathbf{1 3 9 2 \%}$ |

## Ar-39/Ar-40 Dating of IAB Iron Meteorites

In 1979 this dating was carried out by the Department of Physics, University of California, Berkeley. ${ }^{54}$ One of the meteorites was dated at almost ten billion years old. ${ }^{55}$

Table 25

| Maximum Age | $\mathbf{9 , 5 0 0}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{4 , 4 6 0}$ | Million Years |
| Average Age | $\mathbf{5 , 1 6 1}$ | Million Years |
| Age Difference | $\mathbf{5 , 0 4 0}$ | Million Years |
| Difference | $\mathbf{2 1 3 \%}$ | Percent |
| Standard Deviation | $\mathbf{1 , 7 5 3}$ | Million Years |

## Antarctic LL-Chondrites

This sample as dated in 1990 by the Department of Earth Sciences, Faculty of Science, Kobe University, Japan. ${ }^{56}$ Some were dated as being older than the evolutionist age of the Solar System. ${ }^{57}$

Table 26

| Maximum Age | $\mathbf{7 , 3 3 0}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{3 , 1 1 0}$ | Million Years |
| Average Age | $\mathbf{4 , 4 1 0}$ | Million Years |
| Age Difference | $\mathbf{4 , 2 2 0}$ | Million Years |
| Difference | $\mathbf{2 3 5 \%}$ | Percent |
| Standard Deviation | $\mathbf{9 5 0}$ | Million Years |

## Single grain (U-Th)/He ages

This sample as dated in 2003 by the Department of Earth and Planetary Science, University of California, Berkeley. ${ }^{58}$ The dating of one rock produced dates that varied by over 300 percent. ${ }^{59}$

Table 27

| Maximum Age | $\mathbf{4 , 9 0 9}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{1 , 4 5 2}$ | Million Years |
| Average Age | $\mathbf{4 , 0 9 1}$ | Million Years |
| Age Difference | $\mathbf{3 , 4 5 7}$ | Million Years |
| Difference | $\mathbf{3 3 8 \%}$ | Percent |

## Resolution Reveals New Problems

A joint paper by scientist from Australia, USA, Denmark and France. ${ }^{60}$ It discusses why there is discord between dating done on meteorite samples. Below is a list of the five major points discussed in the article. ${ }^{61}$

## Meteorite Dating

Table 28

| Potential problem | Level of awareness and suggested actions |
| :---: | :---: |
| 1 | 1 |
| Presence of non-radiogenic Pb of unknown isotopic composition. <br> The most important and common problem of all. | Recognized by most of the community. <br> Better methods for removal of non-radiogenic Pb are required. |
| 2 | 2 |
| Deviations from closed system evolution (loss of Pb , gain or loss of $\mathbf{U}$ ). Important and common. | Requires monitoring $\mathbf{U}-\mathbf{P b}$ concordance and studying distribution of U and radiogenic Pb . |
| 3 | 3 |
| Mis-identification of the processes that start or reset the isotopic clocks. <br> Important and common. | Requires studying distribution of U and radiogenic Pb , improving experimental reference data set for element migration caused by diffusion, alteration and shock, and linking isotopic dating <br> to the studies in mineralogy and petrology of meteorites. |
| 4 | 4 |
| Analytical problems (fractionation, instrumentspecific etc.) and blank subtraction. Important. | Problems are widely recognized. Ongoing analytical developments help to reduce them. |
| 5 | 5 |
| Fractionation of radiogenic Pb isotopes induced by leaching of alpha recoil tracks. <br> Potentially important. | Recognized by some 'terrestrial" geochronologists, less known to meteoriticists. <br> Detailed experimental studies are required to understand the nature and extent of fractionation. |

## Fission-Track Ages Of Four Meteorites

Six different meteorites were dated in 1976 by scientists from the Enrico Fermi Institute and Department of Chemistry, University of Chicago, Chicago, Illinois. ${ }^{62}$ The dates [Table 29] varied by almost one thousand percent! ${ }^{63}$ If we look at table 30 we can see the four methods used [Fission Track, Potassium-Argon, Uranium-Helium and Rubidium-Strontium] and the discordance between them. ${ }^{63}$

Table 29

| Sample | Maximum Age | Minimum Age | Age Difference | Percent |
| :---: | :---: | :---: | :---: | :---: |
| Name | Billion Years | Billion Years | Billion Years | Difference |
| Bondoc | 1.30 | 0.14 | 1.16 | $929 \%$ |
| Mincy | 3.93 | 1.50 | 2.43 | $262 \%$ |
| Nakhla | 4.40 | 0.77 | 3.63 | $571 \%$ |
| Serra | 2.70 | 0.54 | 2.16 | $500 \%$ |
| Washougal | 4.60 | 4.00 | 0.60 | $115 \%$ |
| Allende | 4.50 | 3.60 | 0.90 | $125 \%$ |

Table 30

| Meteorite | Fission Track | K-Ar | U-He | Rb-Sr |
| :---: | :---: | :---: | :---: | :---: |
| Name | Billion Years | Billion Years | Billion Years | Billion Years |
| Bondoc | 0.14 | 1.30 | 0.60 |  |
| Mincy | 1.50 | 3.93 |  |  |
| Nakhla | 4.40 | 1.30 | 0.77 | 3.60 |
| Serra | 0.54 | 2.70 |  |  |
| Washougal | 4.60 | 4.00 |  |  |
| Allende | 4.50 | 4.40 |  | 3.60 |

## Discordant Meteorite Ages

Many dates are highly discordant and give different ages for the one meteorite. Meteorite Dar al Gani was dated in 2004 by scientists from Italy and England. ${ }^{64}$

Meteorite Dar al Gani ${ }^{65}$

| Maximum Age | $\mathbf{3 , 7 2 5}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{1 , 7 4 9}$ | Million Years |
| Average Age | $\mathbf{3 , 1 2 0}$ | Million Years |
| Age Difference | $\mathbf{1 , 9 7 6}$ | Million Years |
| Difference | $\mathbf{2 1 3 \%}$ | Percent |

Table 31
The Kirin Chondrite was dated in 1981 by scientists from the Research School of Earth Sciences, The Australian National University. Canberra. ${ }^{66}$

The Kirin Chondrite ${ }^{67}$

| Maximum Age | $\mathbf{4 , 3 1 0}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{5 2 0}$ | Million Years |
| Average Age | $\mathbf{3 , 1 6 0}$ | Million Years |
| Age Difference | $\mathbf{3 , 7 9 0}$ | Million Years |
| Difference | $\mathbf{8 2 8 \%}$ | Percent |
| Table 32 |  |  |

The Acapulco Meteorite was dated in 2003 by scientists from the Department of Earth and Planetary Science, University of California, Berkeley. ${ }^{68}$
(U-Th)/He ages from Acapulco Meteorite ${ }^{69}$

| Maximum Age | $\mathbf{4 , 9 0 9}$ | Million Years |
| :---: | :---: | :---: |
| Minimum Age | $\mathbf{1 , 4 5 2}$ | Million Years |
| Average Age | $\mathbf{4 , 0 9 1}$ | Million Years |
| Age Difference | $\mathbf{3 , 4 5 7}$ | Million Years |
| Difference | $\mathbf{3 3 8 \%}$ | Percent |

Table 33


Kyoungwon Min admits that the dating of the Acapulco meteorite is extremely discordant: "Note that seven out of 12 corrected ages are older than the age of the solar system." ${ }^{70}$ The diagram above is taken from his work. ${ }^{70}$

These whole rock nakhiltes were dated in 2004 by scientists from the Lunar and Planetary Laboratory, University of Arizona,
Tucson, Arizona. ${ }^{71}$

40Ar-39Ar Studies of Whole Rock Nakhlites ${ }^{72}$

| Table | Maximum | Minimum | Difference | Difference |
| :---: | :---: | :---: | :---: | :---: |
| Number | Million Years | Million Years | Million Years | Percent |
| Table 1 | 1,405 | 262 | 1,143 | $536 \%$ |
| Table 2 | 1,409 | 199 | 1,210 | $708 \%$ |
| Table 3 | 1,425 | 761 | 664 | $187 \%$ |

## Table 34

The Kirin Chondrite was dated in 1980 by scientists from the Research School of Earth Sciences, The Australian National University. Canberra. ${ }^{73}$

History Of The Kirin Chondrite ${ }^{74}$

| Table | Maximum | Minimum | Difference | Difference |
| :---: | :---: | :---: | :---: | :---: |
| Number | Billion Years | Billion Years | Billion Years | Percent |
| Kirin-1 | 4.36 | 2.16 | 2.2 | $102 \%$ |
| Kirin-2 | 4.06 | 0.48 | 3.58 | $746 \%$ |

Table 35

## Uranium-Thorium-Lead Dating Of Shergotty Phosphates

This dating was done in 2000 by scientists from the Department of Earth and Planetary Sciences, Hiroshima University, Japan and the Planetary Geosciences Institute, Department of Geological Sciences, University of Tennessee. ${ }^{75}$ According to isochron diagrams in the original article, the meteorite's true age is 200 million years old. ${ }^{76}$ If we take the list of ${ }^{207} \mathrm{~Pb} /{ }^{206} \mathrm{~Pb}$ ratios in this article ${ }^{77}$ and run them through Isoplot we get the dates as shown in table 36 below.

Table 36

| Sample | Pb-207/206 | Pb-207/206 |
| :---: | :---: | :---: |
| Name | Ratio | Age |
| SHR04.1 | 0.889 | 5,071 |
| SHRO5.1 | 0.916 | $\mathbf{5 , 1 1 4}$ |
| SHR06.1 | 0.788 | 4,900 |
| SHR13.1 | 0.876 | $\mathbf{5 , 0 5 1}$ |
| SHRI5.1 | 0.833 | 4,979 |
| SHR16.1 | 0.869 | 5,039 |
| SHR19.1 | 0.821 | 4,959 |
| SHR21.1 | 0.842 | 4,994 |
| SHR26.1 | 0.922 | $\mathbf{5 , 1 2 3}$ |
| SHR26.2 | 0.831 | 4,976 |
| SHR27.1 | 0.867 | $\mathbf{5 , 0 3 6}$ |
| SHR28.1 | 0.813 | $\mathbf{4 , 9 4 5}$ |
| SHR29.1 | 0.827 | 4,969 |

## Ion microprobe $\mathrm{U}-\mathrm{Th}-\mathrm{Pb}$ dating

This dating was done in 2000 by scientists from the Department of Earth and Planetary Sciences, Hiroshima University, Japan. ${ }^{78}$ According to isochron diagrams in the original article, the meteorite's true age is between 1200 and 1700 million years old. ${ }^{79}$ If we take the list of ${ }^{207} \mathrm{~Pb} /{ }^{206} \mathrm{~Pb}$ ratios in this article ${ }^{80}$ and run them through Isoplot we get the dates as shown in table 37 below.

Table 37

| Sample | Pb-207/206 | Pb-207/206 |
| :---: | :---: | :---: |
| Name | Ratio | Age |
| LAFA01.01 | 0.7907 | 4,905 |
| LAFA03.01 | 0.3969 | $\mathbf{3 , 8 9 7}$ |
| LAFA04.01 | 0.6561 | 4,637 |
| LAFA04.02 | 0.6639 | 4,654 |
| LAFA04.03 | 0.6898 | 4,710 |
| LAFA05.01 | 0.7999 | 4,922 |
| LAFA08.01 | 0.4505 | 4,087 |
| LAFA09.01 | 0.7126 | 4,756 |
| LAFA10.01 | 0.6506 | 4,625 |
| Y-000593.1 | 0.9029 | 5,093 |
| Y-000593.2 | 0.7225 | 4,776 |
| Y-000593.3-1 | 1.0819 | 5,348 |
| Y-000593.3-2 | 0.8453 | 5,000 |
| Y-000593.4 | 0.7097 | 4,750 |
| Y-000593.5 | 0.6311 | 4,581 |
| Y-000749.1 | 0.7842 | 4,893 |
| Y-000749.3 | 0.9092 | 5,103 |
| Y-000749.4 | 0.7529 | 4,835 |
| Y-000749.5-1 | 0.8569 | 5,019 |

## The Chondritic Meteorite Orvinio

Scientists from Arizona, Massachusetts, New Mexico and Florida performed this dating in 2004. ${ }^{81}$ Four of the meteorites dated to be older than the evolutionist age of the Solar System. ${ }^{82}$ One date to be older than the Big Bang. ${ }^{82}$ The discordance between dates varied from hundreds to thousands of percent in error. ${ }^{82}$

Table 38

| Table | Max Age | Min Age | Difference | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| A1 | $\mathbf{1 7 , 1 7 8}$ | $\mathbf{5 7 0}$ | $\mathbf{1 6 , 6 0 8}$ | $\mathbf{2 , 9 1 4 \%}$ |
| A2 | $\mathbf{3 , 6 6 0}$ | $\mathbf{3 2 4}$ | $\mathbf{3 , 3 3 6}$ | $\mathbf{1 , 0 3 0 \%}$ |
| A3 | $\mathbf{3 , 7 2 0}$ | $\mathbf{7 0 3}$ | $\mathbf{3 , 0 1 7}$ | $\mathbf{4 2 9 \%}$ |
| A4 | $\mathbf{7 , 8 0 0}$ | $\mathbf{9 0 4}$ | $\mathbf{6 , 8 9 6}$ | $\mathbf{7 6 3 \%}$ |
| A5 | $\mathbf{7 , 1 0 0}$ | $\mathbf{9 2 2}$ | $\mathbf{6 , 1 7 8}$ | $\mathbf{6 7 0 \%}$ |
| A6 | $\mathbf{8 , 5 0 0}$ | $\mathbf{5 2 6}$ | $\mathbf{7 , 9 7 4}$ | $\mathbf{1 , 5 1 6 \%}$ |

## Martian Meteorite Chronology

This meteorite was dated in 2011 by scientists from the Lawrence Livermore National Laboratory, Physical and Life Sciences, Institute of Geophysics and Planetary Physics, California and the Department of Earth and Planetary Sciences, University of New Mexico. ${ }^{83}$ The article states that the meteorite's true age is 3.6 billion years. ${ }^{84}$ If we take the list of ${ }^{207} \mathrm{~Pb}{ }^{206} \mathrm{~Pb}$ ratios in this article ${ }^{85}$ and run them through Isoplot we get the dates as shown in table 39 below.

Table 39

| Sample | Pb-207/206 | Pb-207/206 |
| :---: | :---: | :---: |
| Name | Ratio | Age |
| Plag(R) | 0.751287431 | $\mathbf{4 , 8 3 2}$ |
| Plag(L) | 0.787456711 | $\mathbf{4 , 8 9 9}$ |
| Px(R) | 0.580150952 | $\mathbf{4 , 4 5 9}$ |
| Px(L) | 0.699212521 | 4,729 |
| WR(R) | 0.480536633 | $\mathbf{4 , 1 8 3}$ |
| WR(L) | 0.489632855 | $\mathbf{4 , 2 1 0}$ |
| Ilm | 0.498182294 | $\mathbf{4 , 2 3 6}$ |
| Heated Sample |  |  |
| Plag(R) | 0.773980154 | $\mathbf{4 , 8 7 5}$ |
| Plag(L) | 0.640266469 | $\mathbf{4 , 6 0 2}$ |
| Plag-rej | 0.61697479 | $\mathbf{4 , 5 4 8}$ |
| Px(R) | 0.655620155 | $\mathbf{4 , 6 3 6}$ |
| Px(L) | 0.623966942 | $\mathbf{4 , 5 6 5}$ |
| Px-rej | 0.565672185 | $\mathbf{4 , 4 2 2}$ |
| WR(R) | 0.500867867 | $\mathbf{4 , 2 4 4}$ |
| WR(L) | 0.515289324 | $\mathbf{4 , 2 8 6}$ |
| Ilm | 0.498417311 | $\mathbf{4 , 2 3 7}$ |
| NBS-981 | 0.913501361 | $\mathbf{5 , 1 1 0}$ |
| Faraday-Daly | 0.913967671 | $\mathbf{5 , 1 1 1}$ |

## ${ }^{39} \mathrm{Ar} /{ }^{40} \mathrm{Ar}$ "ages" in Martian Shergottites

I downloaded this table from the official Meteoritics website. ${ }^{86}$ Six of the meteorites were dated as being well over five billion years old. One was dated as being as old as the evolutionist age of the Milky Way Galaxy. ${ }^{86}$

Table 40

| Sample | Max Age | Min Age | Difference | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years | Difference |
| Los Angeles Plag | 4,569 | 183 | 4,387 | 2,404\% |
| Los Angeles, WR | 1,270 | 156 | 1,114 | 714\% |
| Los Angeles Pyx | 7,432 | 581 | 6,851 | 1,180\% |
| NWA-3171 Plag | 2,484 | 203 | 2,281 | 1,121\% |
| NWA-3171 Glass | 2,056 | 299 | 1,757 | 588\% |
| NWA-2975 Plag | 5,709 | 262 | 5,447 | 2,080\% |
| Dhofar 019 Plag | 10,150 | 453 | 9,697 | 2,140\% |
| Dhofar 019 WR | 7,791 | 614 | 7,177 | 1,170\% |
| DaG476 Plag | 3,378 | 432 | 2,946 | $681 \%$ |
| DAG 476 WR | 5,889 | 980 | 4,909 | 501\% |
| DaG476-Px-Dark | 7,975 | 1,746 | 6,229 | 357\% |
| DaG476-Px-Light | 4,117 | 391 | 3,726 | 953\% |
| NWA-1068 WR | 2,524 | 61 | 2,463 | 4,043\% |
| SAU-005 WR | 3,988 | -0.4619 | 3,988 | 863,490\% |
| Y-980459 WR | 1,784 | 583 | 1,201 | 206\% |

## Argon Dating Of Chondrites

I downloaded this table from the official Meteoritics website. ${ }^{87}$ Four of the meteorites were dated as being well over five billion years old. One was dated as being older than the evolutionist age of the Milky Way Galaxy. ${ }^{87}$

Table 41

| Meteorite | Maximum Age | Minimum Age | Difference | Percentage |
| :---: | :---: | :---: | :---: | :---: |
| Name | Billion Years | Billion Years | Billion Years | Difference |
| Caddo \#5 | 12.55 | 4.22 | 8.33 | $197 \%$ |
| EET833,5 | 6.82 | 2.21 | 4.60 | $208 \%$ |
| Udei Station | 4.52 | 1.43 | 3.09 | $216 \%$ |
| Campo del Cielo | 7.71 | 3.40 | 4.31 | $127 \%$ |
| Kendall Co. | 7.59 | 2.06 | 5.53 | $269 \%$ |

## Isotopic Lead Ages Of Meteorites

This dating was done in 1973 by scientist from Switzerland and California. ${ }^{88}$ The dates ${ }^{89}$ below in table 42 give numerous values much older than the so called age of the Solar System.

Table 42

| Meteorite | 206Pb/238U | 207Pb/235U | 207Pb/206Pb |
| :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years |
| Bruderheim-1 | $\mathbf{4 1 2 6}$ | $\mathbf{4 4 4 7}$ | $\mathbf{4 6 4 7}$ |
| Bruderheim-2 | $\mathbf{4 5 4 2}$ | $\mathbf{4 5 9 2}$ | $\mathbf{4 6 2 8}$ |
| Bruderheim-3 | 4959 | 4703 | 4605 |
| Richardton-1 | $\mathbf{8 6 1 5}$ | $\mathbf{5 6 0 2}$ | $\mathbf{4 6 0 4}$ |
|  |  |  | $\mathbf{4 , 6 3 8}$ |
| Richardton-2 | $\mathbf{6 8 3 4}$ | 5230 | $\mathbf{4 6 3 3}$ |
| Pultusk | 5334 | $\mathbf{4 9 3 9}$ | $\mathbf{4 6 5 7}$ |
|  |  |  | $\mathbf{4 , 6 5 1}$ |

If we take the list of ${ }^{207} \mathrm{~Pb} /{ }^{206} \mathrm{~Pb}$ ratios in this article ${ }^{90}$ and run them through Isoplot we get the dates as shown in table 39 below.
Table 43

| Meteorite | 206Pb/204Pb | 207Pb/204Pb | 207Pb/206Pb | 207Pb/206Pb |
| :---: | :---: | :---: | :---: | :---: |
| Name | Amount | Amount | Ratio | Age |
| Allende-I | 1,064 | 1,088 | 1.0226 | 5,269 |
| Allende-II | 1,012 | 1,078 | 1.0652 | 5,326 |
| Murchison | 977 | 1,056 | 1.0809 | 5,346 |
|  | 985 | 1,062 | 1.0782 | 5,343 |
| Mezo-Madaras | 9,449 | 10,384 | 1.0990 | 5,370 |
|  | 9,444 | 10,356 | 1.0966 | 5,367 |
| Bruderheim-I | 3,562 | 2,683 | 0.7532 | 4,836 |
| Bruderheim-II | 3,023 | 2,327 | 0.7698 | 4,867 |
| Bruderheim-III | 3,275 | 2,469 | 0.7539 | 4,837 |
|  | 3,733 | 2,741 | 0.7343 | 4,799 |
| Richardton-I | 2,155 | 1,794 | 0.8325 | 4,978 |
|  | 2,187 | 1,796 | 0.8212 | 4,959 |
| Richardton-II | 2,228 | 1,827 | 0.8200 | 4,957 |
|  | 2,571 | 2,050 | 0.7974 | 4,917 |
| Pultusk | 2,045 | 1,732 | 0.8469 | 5,003 |
|  | 2,180 | 1,820 | 0.8349 | 4,982 |

## U-Pb and ${ }^{207} \mathrm{~Pb}^{-{ }^{206}} \mathbf{P b}$ ages of Eucrites

This dating was done in 2005 by scientists from the Antarctic Meteorite Research Centre, Tokyo, Japan. ${ }^{91}$ Several dates ${ }^{92}$ give ages much greater than the "absolute age" of 4.5 billion years for the age of the Solar System.

Table 44

| Meteorite | Maximum | Minimum | Average |
| :---: | :---: | :---: | :---: |
| Name | Million Years | Million Years | Million Years |
| Yamato-75011 | $\mathbf{5 , 0 7 0}$ | $\mathbf{4 , 5 4 8}$ | $\mathbf{4 , 8 6 3}$ |
| Yamato- | $\mathbf{5 , 3 0 0}$ | $\mathbf{4 , 6 1 3}$ | $\mathbf{4 , 8 9 9}$ |
| $\mathbf{7 9 2 5 1 0}$ | $\mathbf{4 , 8 2 5}$ | $\mathbf{3 , 8 4 7}$ | $\mathbf{4 , 4 0 4}$ |
| Asuka-881388 | $\mathbf{4 , 9 1 1}$ | $\mathbf{4 , 5 6 9}$ | $\mathbf{4 , 6 7 3}$ |
| Asuka-881467 | $\mathbf{5 , 2 2 3}$ | $\mathbf{3 , 1 0 2}$ | $\mathbf{4 , 5 3 7}$ |
| Padvalninkai |  |  |  |

## ${ }^{40} \mathrm{Ar}^{3}{ }^{39} \mathrm{Ar}$ Dating Of Desert Meteorites

Dated in 2005 by scientists ${ }^{93}$ from Germany and Russia, these meteorite samples gave astounding results. Many dates were older than the evolutionist age of the Solar System. ${ }^{94}$

Table 45

| Sample Name | Million Years |
| :---: | :---: |
| Table A1. Dhofar 007 whole rock. | 7,632 |
|  | 6,033 |
|  | 5,498 |
| Table A2. Dhofar 007 plagioclase. | 7,582 |
|  | 7,011 |
|  | 4,753 |
|  | 4,741 |
| Table A3. Dhofar 300 whole rock. | 9,015 |
|  | 8,485 |
|  | 5,516 |
|  | 5,137 |
| Table A5. Dhofar 300 pyroxene | 8,957 |
|  | 6,064 |
|  | 5,656 |
|  | 4,998 |
|  | 4,720 |
| Table A5. Dhofar 300 plagioclase. | 9,680 |
|  | 5,793 |
|  | 5,721 |
|  | 5,395 |
|  | 5,237 |
|  | 5,035 |
|  | 4,788 |

## Northwest Africa 482

These meteorites were dated in 2002 by scientists from the Lunar and Planetary Laboratory, University of Arizona, Tucson, Arizona. ${ }^{95}$ Many dates were older than the evolutionist age of the Solar System. ${ }^{96}$

Table 46

| Bulk Sample | Million Years |
| :---: | :---: |
|  | $\mathbf{9 , 6 7 0}$ |
|  | $\mathbf{8 , 5 6 0}$ |
|  | $\mathbf{8 , 1 2 7}$ |
|  | $\mathbf{6 , 2 5 6}$ |
| Glass Sample | Million Years |
|  | $\mathbf{9 , 9 0 5}$ |
|  | $\mathbf{7 , 3 8 8}$ |
|  | $\mathbf{5 , 7 0 8}$ |

## Conclusion

Brent Dalrymple states in his anti creationist book The Age of the Earth: "Several events in the formation of the Solar System can be dated with considerable precision." ${ }^{97}$

Looking at some of the dating it is obvious that precision is much lacking. He then goes on: "Biblical chronologies are historically important, but their credibility began to erode in the eighteenth and nineteenth centuries when it became apparent to some that it would be more profitable to seek a realistic age for the Earth through observation of nature than through a literal interpretation of parables." 98

I his book he gives a table ${ }^{99}$ with radiometric dates of twenty meteorites. If you run the figures through Microsoft Excel, you will find that they are $98.7 \%$ in agreement. There is only a seven percent difference between the ratio of the smallest and oldest dates. As we have seen in this essay, such a perfect fit is attained by selecting data and ignoring other data. A careful study of the latest research shows that such perfection is illusionary at best.

The Bible believer who accepts the creation account literally has no problem with such unreliable dating methods. Much of the data in Dalrymple's book is selectively taken to suit and ignores data to the contrary.

## References

| 1 | $\frac{\text { http://web.archive.org/web/20051223072700/http://pubs.usgs.gov/gip/geotime/age.html }}{\text { The age of } 10 \text { to } 15 \text { billion years for the age of the Universe. }}$ |
| :--- | :--- |
| 2 | $\underline{\text { http://en.wikipedia.org/wiki/Age_of_the_universe }}$ |
| 3 | http://arxiv.org/pdf/1001.4744v1.pdf <br> Microwave Anisotropy Probe Observations, Page 39, By N. Jarosik |
| 5 | $\underline{\text { http://en.wikipedia.org/wiki/Age_of_the_Earth }}$ |
| http://sp.lyellcollection.org/content/190/1/205 <br> The age of the Earth, G. Brent Dalrymple <br> Geological Society, London, Special Publications, January 1, 2001, Volume 190, Pages 205-221 |  |
| 6 | The age of the earth, Gérard Manhes <br> Earth and Planetary Science Letters, Volume 47, Issue 3, May 1980, Pages 370-382 |

http://arxiv.org/pdf/astro-ph/0506458v1.pdf
The age of the Galactic disk, By E. F. del Peloso and L. da Silva
Astronomy \& Astrophysics, Manuscript no. 3307, February 2, 2008
Paul Pellas, History Of The Acapulco Meteorite, Geochemica Et Cosmochemica Acta, 1997, Volume 61, Number 16, pp. 3477-3501
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Pellas.pdf
Reference 8, Page 3500
L. Rancitelli, Potassium: Argon Dating of Iron Meteorites, Science, 1967, Volume 155, Pages 999-1000
C:\Essays\Geo_Dating\Age_Earth\Meteor_Rancitelli.pdf
Reference 10, Page 999
R. W. Stoenner and J. Zahringer, Geochimica et Cosmochimica Acta, 1958, Volume 15, Page 40.

Reference 10, Page 1000
Yuri Amelin, Pb isotopic age of the Allende Chondrules, Meteoritics And Planetary Science, 2007, Volume 42, Numbers 7/8, Pages 1321-1335
C:\Essays\Geo_Dating\Age_Earth\Amelin_C.pdf
Reference 14, Page 1524
J. L. Birck, Rhenium-187-Osmium-187 in iron meteorites, Meteoritics And Planetary Science, 1998, Volume 33, Pages 641-453
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Birck.pdf
Reference 16, Page 649
D. D. Bogard, Ar-39, Ar-40 Dating of Mesosiderites, Geochemica Et Cosmochemica Acta, 1990, Volume 54, pages 2549-2564
C:\Essays\Geo_Dating\Age_Earth\BOGARD_A.pdf
Reference 18, Page 2563, 2564
Reference 18, Page 2551
Ekaterina V. Korochantseva, 40Ar-39Ar Chronology, Meteoritics And Planetary Science, 2009, Volume 44, Number 2, Pages 293-321
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Korochantseva.pdf
Reference 20, Pages 316 to 321
Joachim Kunz, Shocked meteorites: Argon-40-Argon-39, Meteoritics And Planetary Science, 1997, Volume 32, Pages 647-670
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Kunz.pdf
Reference 21, Pages 664 to 670
R. W. Stoenner, Potassium-argon age of iron meteorites, Geochemica Et Cosmochemica Acta, 1958, Volume 15, Pages 40-50
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Stoenner.pdf
Reference 25, Pages 45 to 46

## Meteorite Dating

Mitsunobu Tatsumoto, The Allende and Orgueil Chondrites, Geochemica Et Cosmochemica Acta, 1976, Volume 40, pages 617-634
C:\Essays\Geo Dating\Age_Earth\Meteorite_Tatsumoto.pdf
Reference 27, Page 627
Yuri Amelin, Precise U-Pb dating of Chondrites, Geochemica Et Cosmochemica Acta, 2005, Volume 69, Number 2, pages 505-518
C:\Essays\Geo_Dating\Age_Earth\Amelin_A.pdf
Reference 29, Page 509
Yuri Amelin, U-Pb ages of angrites, Geochemica Et Cosmochemica Acta, 2008, Volume 72, Pages 221-232
C:\Essays\Geo_Dating\Age Earth\Amelin_D.pdf
Reference 31, Page 225
D. D. Bogard, Ar Diffusion Properties, Meteorites, Geochemica Et Cosmochemica Acta, 1980, Volume 44, Pages 1667-1682
C:\Essays\Geo_Dating\Age_Earth\BOGARD_B.pdf
Reference 31, Pages 1670, 1671
D. D. Bogard, U-Th-Pb dating of Abee E4 Meteorite, Earth and Planetary Science Letters, 1983, Volume 62, Pages 132-146
C:LEssays\Geo_Dating\Age_Earth\BOGARD_C.pdf
Reference 35, Page 134, 135
http://www.bgc.org/isoplot_etc/isoplot.html
Reference 35, Page 139
Reference 35, Page 142
D. D. Bogard, 39Ar/40Ar Ages of Eucrites, Meteoritics And Planetary Science, 2003, Volume 38, Number 5, Pages 669-710
C:\Essays\Geo_Dating\Age_Earth\BOGARD_E.pdf
Reference 39, Pages 699 to 710
D. D. Bogard, Argon-39/Argon-40 Ages, Meteoritics And Planetary Science, 2001, Volume 36, Pages 107-122 C:\Essays\Geo_Dating\Age_Earth\BOGARD_F.pdf

Reference 42, Pages 120-122
D. S. Burnett, Rb-Sr Ages Of Iron Meteorites, Earth and Planetary Science Letters, 1967, Volume 2, Pages 397-408
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Burnett.pdf
Reference 44, Pages 401, 402
Elmar K. Jessberger, 40-Ar/39-Ar Ages of Allende, Icarus, 1980, Volume 42, pages 380-405
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Jessberger.pdf
Reference 46, Pages 390-403
F. Jourdan, The Fossil LL6 Chondrite, Geochemica Et Cosmochemica Acta, 2010, Volume 74, Pages 1734 - 1747 C:\Essays\Geo Dating\Age_Earth\Meteorite_JOURDAN.pdf

Reference 48, Page 1738-1739

## Meteorite Dating

W. Kaiser, K/Ar Age Determinations of Iron Meteorites, Earth and Planetary Science Letters, 1968, Volume 4, pages 84-88
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Kaiser.pdf
Reference 50, Page 86
P. McConville, The Peace River shocked M chondrite, Geochemica Et Cosmochemica Acta, 1988, Volume 52, Pages 2487-2499
C:\Essays\Geo_Dating\Age_Earth\Meteorite_MCCONVILL.pdf
Reference 52, Pages 2489, 2490, 2493, 2494
Sidney Niemeyer, Ar-39/Ar-40 dating of IAB iron meteorites, Geochemica Et Cosmochemica Acta, 1979, Volume 43, Pages 1829-1840
C:\Essays\Geo_Dating\Age_Earth\Meteorite_NIEMEYER.pdf
Reference 54, Page 1834
Osamu Okano, Antarctic LL-chondrites, Geochemica Et Cosmochemica Acta, 1990, Volume 54, Pages 3509-3523 C:\Essays\Geo_Dating\Age_Earth\Meteorite_Okano.pdf

Reference 57, Page 3510
Kyoungwon Min, Single grain (U-Th)/He ages, Acapulco meteorite, Earth and Planetary Science Letters, 2003, Volume 209, pages 323-336
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Kyoungwon.pdf
Reference 57, Page

Yuri Amelin, Resolution Reveals New Problems, Geochemica Et Cosmochemica Acta, 2009, Volume 73, Pages 5212-5223
C:\Essays\Geo_Dating\Age_Earth\Amelin_B.pdf
Reference 60, Page 5215
Eugene A. Carver, Fission-track ages of four meteorites, Geochemica Et Cosmochemica Acta, 1976, Volume 40, Pages 467-477
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Carver.pdf
Reference 62, Page 475

Luigi Folco, Meteorite Dar al Gani 896, Geochemica Et Cosmochemica Acta, 2004, Volume 68, Number 10, Page 2383
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Folco.pdf
Reference 64, Page 2383
T. Mark Harrison, The Kirin Chondrite, Geochemica Et Cosmochemica Acta, 1981, Volume 45, Pages 2514

C:\Essays\Geo_Dating\Age_Earth\Meteorite_HARRISON.pdf
Reference 66, Page 2514
Kyoungwon Min, (U-Th)/He ages from Acapulco meteorite, Earth And Planetary Science Letters, 2003, Volume 209, Pages 328
C:\Essays\Geo_Dating\Age_Earth\Meteorite_Min.pdf
Reference 66, page 328
Reference 66, page 332

## Meteorite Dating

Timothy D. Swindle, 40Ar-39Ar Studies of Whole Rock Nakhlites, Meteoritics And Planetary Science, 2004, Volume 39, Number 5, Pages 764-766
C:\Essays\Geo Dating\Age_Earth\Meteorite_Swindle.pdf
Reference 66, page 764-766
Sungshan Wang, History Of The Kirin Chondrite, Earth And Planetary Science Letters, 1980, Volume 49, Pages 117-131
C:\Essays\Geo_Dating\Age_Earth\Meteorite_WANG.pdf
Reference 73, page 120
Uranium-Thorium-Lead Dating Of Shergotty Phosphates, Mereoritics And Planetary Science, 2000, Volume 35, Pages 341-346
C:\Essays\Geo_Dating\Meteorites\Pb-206-01.pdf
Reference 75, Page 343, 344
Reference 75, Page 342
Ion microprobe U-Th-Pb Dating, Meteoritics \& Planetary Science, 2004, Volume 39, Number 12, Pages 2033-2041 C:\Essays\Geo_Dating\Meteorites $\backslash \mathbf{P b}-206-04 . p d f$

Reference 78, Page 2035, 2037
Reference 78, Page 2036
The Chondritic Meteorite Orvinio, Meteoritics \& Planetary Science, 2004, Volume 39,
Number 9, Pages 1475-1493
C:\Essays\Geo_Dating\Meteorites\Pb-206-05.pdf
Reference 82, Page 1488-1493
Martian Meteorite Chronology, Meteoritics \& Planetary Science, 2011, Volume 46, Number 1, Pages 35-52
C:\Essays\Geo_Dating\Meteorites\Pb-206-06.pdf
Reference 84, Page 41
Reference 84, Page 47
D. Bogard, ${ }^{39} \mathrm{Ar}^{-40} \mathrm{Ar}$ "ages" and origin of excess ${ }^{40} \mathrm{Ar}$ in Martian shergottites http://meteoritics.org/Online\% 20Supplements/MAPS1080_Electronic-Annex.doc

Meteoritics \& Planetary Science, Volume 40, Issue 2, February 2005
http://meteoritics.org/Online\% 20Supplements/Ar-XeData_Bogard.xls
G. R. Tilton, Isotopic Lead Ages Of Meteorites, Earth And Planetary Science Letters, 1973, Volume 19 Pages 321329
C:\Essays\Geo_Dating\Meteorites\Pb-206-14.pdf
Reference 89, Page 328
Reference 89, Page 323
U-Pb and ${ }^{207}{ }^{\mathbf{P b}}{ }^{206} \mathbf{P b}$ ages of Eucrites, Geochimica et Cosmochimica Acta, 2005, Volume 69, Number 24, Pages 5847-5861.
C:\Essays\Geo_Dating\Meteorites\To_Old_07.pdf
Reference 92, Pages 5852-5853
Meteoritics \& Planetary Science, 2005, Volume 40, Number 9/10, Pages 433-1454

## C:\Essays\Geo_DatinglVery_Old_RockslVery_Old_02.pdf

Reference 94, Pages 1452-1454
Meteoritics \& Planetary Science, 2002, Volume 37, Pages 1797-1813
C:\Essays\Geo_Dating\Very_Old_RockslVery_Old_04.pdf
Reference 96, Page 1806
The Age Of The Earth, By G. Brent Dalrymple, 1991, Stanford University Press, Stanford, California, Page 10.
Reference 98, Page 23

Reference 98, Page 287
Reference 98, Page 342

## www.creation.com

