#### Meteorite Dating By Paul Nethercott 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.<sup>1</sup> Standard evolutionist publications give the age of the universe as 13.75 Billion years.<sup>2,3</sup>

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." <sup>4</sup> "The Solar System, formed between 4.53 and 4.58 billion years ago." <sup>1</sup> "The age of 4.54 billion years found for the Solar System and Earth." <sup>1</sup> "A valid age for the Earth of 4.55 billion years." <sup>5</sup>, <sup>6</sup>

Evolutionists give the age of the galaxy as "11 to 13 billion years for the age of the Milky Way Galaxy." <sup>1, 7</sup> 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 <sup>8</sup> from France and Germany. Some of the dates <sup>9</sup> are older than the Solar System. We shall soon see that this is quite common for dating these rocks.

<u>]</u>	Table 1	
Maximum Age	11,421	Million Years
Minimum Age	3,481	Million Years
Average Age	4,964	Million Years
Age Difference	7,940	Million Years
Difference	328%	Percent
Standard Deviation	1,723	Million Years

# **Potassium Argon Dating of Iron Meteorites**

This article summarised meteorite dating in 1967. <sup>10</sup> 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." <sup>11</sup> He then cites earlier dating which produced an age of seven billion years. <sup>12</sup> 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." <sup>13</sup>

<u>Table 2</u>		
Meteorite	Age	
Sample	<b>Billion Years</b>	
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 <sup>206</sup>Pb/<sup>238</sup>U dating method. <sup>14</sup> 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. <sup>15</sup>

Table 3			
Maximum Age	10,066	Million Years	
Minimum Age	1,799	Million Years	
Average Age	4,509	Million Years	
Age Difference	8,267	Million Years	
Percentage Difference	559%	Percent	
Standard Deviation	1,640	Million Years	

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

Scientists from France used both <sup>87</sup>Sr/<sup>86</sup>Sr and Rhenium-Osmium method were used to date this meteorite in 1998.<sup>16</sup> Dates in the essay <sup>17</sup> 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	<b>Billion Years</b>	
<u>Canyon Diablo</u>		
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.<sup>18</sup> 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.<sup>19</sup> According to one table the supposed true age is just 3.5 billion years old.<sup>20</sup>

<u>Table 5</u>				
Meteorite	Maximum	Minimum	Age Difference	Percentage
Name	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>	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 <sup>21</sup> 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. <sup>22</sup> Most age results were hundreds or thousands of percent discordant.

Sample	Maximum	Minimum	Age Difference	Percent
Name	Million Years	Million Years	Million Years	Difference
Table A01. Dhofar 019 whole rock	11,679	737	10,942	1,584%
Table A02. Dhofar 019 maskelynite	10,521	818	9,703	1,286%
<u>Table A03. Dhofar 019 pyroxene</u>	10,730	804	9,926	1,334%
<u>Table A04. Dhofar 019 olivine</u>	10,487	1,778	8,709	589%
Table A05. Dhofar 019 opaque	14,917	4,420	10,497	337%
Table A06. SaU 005 whole rock	7,184	568	6,616	1,264%
Table A07. SaU 005 glass	6,235	3,247	2,988	192%
Table A08. SaU 005 maskelynite	7,432	1,344	6,088	552%
Table A10. SaU 005 olivine	13,979	3,839	10,140	364%
Table A11. Shergotty whole rock	8,542	1,112	7,430	768%
Table A15. Zagami whole rock	6,064	94	5,970	6,451%
Table A16. Zagami maskelynite	5,733	238	5,495	2,408%
Table A18. Zagami opaque	7,707	290	7,417	2,657%
Table A9. SaU 005 pyroxene	12,845	1,354	11,491	948%

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

Dated in 1997 by scientists <sup>23</sup> 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. <sup>24</sup> Most age results that were hundreds or thousands of percent discordant.

	<u> Table 7</u>			
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
<u>P. Paranaiba (L6/S6) host mk #I</u>	3,332	453	2,879	736
Q. Paranaiba (L6/s6) host rock #2	5,593	3,110	2,483	180
<u>R. Taiban (L5/S6) host rock</u>	2,845	492	2,353	578
<u>S. Taiban (L5/S6) melt</u>	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 8101 1 (eucrite) clast	3,818	375	3,443	1,018
Y. ALHA 8101 1 (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.<sup>25</sup> These dates <sup>26</sup> 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**

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
<b>Canon Diablo II</b>	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. <sup>27</sup> Six were dated as being over ten billion years old. <sup>28</sup> Two were dated as being as old as the Big Bang explosion. <sup>28</sup>Fifty three dates were over five billion years. <sup>28</sup> Below [Tables 9 and 10] we can see the strong discordance between the <sup>208</sup>Pb/<sup>232</sup>Th and <sup>206</sup>Pb/<sup>238</sup>U dating methods

	Table 9	
Pb-208/Th-232		
Maximum Age	14.40	<b>Billion Years</b>
Minimum Age	4.81	<b>Billion Years</b>
Average Age	6.40	<b>Billion Years</b>
Age Difference	9.59	<b>Billion Years</b>
Difference	299.38%	Percent
<b>Standard Deviation</b>	3.37	<b>Billion Years</b>

#### Table 10

Pb-206/U-238		
Maximum Age	9.86	<b>Billion Years</b>
Minimum Age	3.91	<b>Billion Years</b>
Average Age	6.02	<b>Billion Years</b>
Age Difference	5.95	<b>Billion Years</b>
Difference	252.17%	Percent
Standard Deviation	1.45	<b>Billion Years</b>

### **Precise U-Pb dating of Chondrites**

This dating was done in 2005 by scientists from USA and Canada.<sup>29</sup> Five dates were over five billion years old.<sup>30</sup>

	<u>Table 11</u>	
Maximum Age	6,473	Million Years
Minimum Age	4,249	Million Years
Average Age	4,675	Million Years
Age Difference	2,224	Million Years
Difference	152%	Percent

 $\underline{\text{U-Pb Ages of Angrites}}_{\text{This dating was done in 2007 by scientists from Australia and Canada.<sup>31</sup> Eight dates were older than the evolutionist age of the$ Solar System.<sup>32</sup>

<u>Table 12</u>		
Sample	Pb-206/U-238	
Name	Million Years	
Angra dos Reis		
4W3	5,535	
5W3	5,658	
Lewis Cliff 86010		
10W3a	6,072	
11W3	6,625	
D'Orbigny		
15R	4,842	
16Ra	4,893	
17R	4,695	
18R	4,972	
19R	5,080	
20R	4,957	
21W3	5,471	
22W3	5,291	
23W3	5,568	

Argon Diffusion Properties Dating done in 1980 of various meteorites gave many discordant values.<sup>32</sup> Six were dated as older than the Solar System.<sup>33</sup>

<u>Table 13</u>						
Meteor's Maximum Minimum Percenta						
Name	<b>Billion Years</b>	<b>Billion Years</b>	Difference			
Wellman	5.2	3.737	139%			
Wickenburg	3.005	0.568	529%			
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	724%			
Lubbock	9.4	0.12	7,833%			
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.<sup>35</sup> The two table below [Table 14, 15] are a summary of Argon dating done on different meteorite samples.<sup>36</sup> Both sample record dates older than the evolutionist age of the solar system. The original article has undated <sup>207</sup>Pb/<sup>206</sup>Pb ratios. If we run the through Isoplot <sup>37</sup> we find the ratios <sup>38, 39</sup> give the results in tables 16 and 17. All are much older than the evolutionist age of the solar system.

<u>Table 14</u>			
Abee clast 2, 2, 05			
Maximum Age	7,200	Million Years	
Minimum Age	3,990	Million Years	
Average Age	4,640	Million Years	
Age Difference	3,210	Million Years	
Difference	180%	Percent	
Standard Deviation	840	Million Years	

Table 15

Abee clast 3, 3, 06		
Maximum Age	8,900	Million Years
Minimum Age	3,580	Million Years
Average Age	4,610	Million Years
Age Difference	5,320	Million Years
Difference	248%	Percent
Standard Deviation	1,360	Million Years

Τ	a	bl	e	1	<u>6</u>	

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

Meteorite	Dating
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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
<b>Canyon Diablo</b>	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.<sup>40</sup> Ten of the meteorites were dated as being over five billion years old.<sup>41</sup>

	Table 18					
<u>Meteorite</u>	Maximum	Minimum	Difference	Percent		
<u>Sample</u>	Million Years	Million Years	Million Years	Difference		
A. QUE 97053,8	9,669	3,749	5,920	257%		
<u>B. GRA 98098,26 WR</u>	7,008	3,239	3,769	216%		
<u>C. PCA - 82502,81</u>	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%		
<u>F. Asuka-881388,55</u>	4,853	3,250	1,603	149%		
<u>G. Asuka-881467,42</u>	4,465	202	4,263	2,210%		
<u>H. GRO - 95533,7</u>	4,096	2,823	1,273	145%		
<u>I. QUE - 97014,5</u>	4,553	2,947	1,606	154%		
<u>J. Moama</u>	4,484	866	3,618	517%		
<u>K. EET - 87520</u>	5,481	2,004	3,477	273%		
L. Moore County	6,742	1,827	4,915	369%		
<u>M. Serra de Mage</u>	6,100	499	5,601	1222%		
<u>N. EET -87548</u>	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%		
<u>S. Macibini Glass</u>	5,788	2,621	3,167	220%		
<u>T. QUE - 94200,13</u>	3,724	3,169	555	117%		
<u>U. EET - 87509,24</u>	7,496	4,026	3,470	186%		
<u>V. EET - 87509,71</u>	4,449	3,558	891	125%		
W. EET -87509,74	4,645	873	3,772	532%		
<u>X. EET - 87531,21</u>	4,176	3,301	875	126%		
<u>Y. EET - 87503,53</u>	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.<sup>42</sup> The Monahans chondrite and halite was dated in 2001 as being over eight billion years old.<sup>43</sup>

Table 19			
Maximum Age	8,058	Million Years	
Minimum Age	3,899	Million Years	
Average Age	4,474	Million Years	
Age Difference	4,159	Million Years	
Difference	206%	Percent	

**Rb-Sr Ages Of Iron Meteorites** These samples were dated in 1967 by the California Institute of Technology, Pasadena, California.<sup>44</sup> 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.<sup>45</sup>

<b>Table 20</b>			
Meteorite	Age		
Rb-Sr Dating	<b>Billion Years</b>		
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		
Colomera D6	5.1		

**40-Ar / 39-Ar Ages of Allende** Scientist from the Max-Planck-Institute, Heidelberg, Germany, dated these samples in 1980. <sup>46</sup> Seven samples were dated as being over five billion years old. <sup>47</sup>

Sample	Maximum	Minimum	Difference	Percentage
Name	Million Years	Million Years	Million Years	Difference
Sample 01	4,455	2,452	2,003	181%
Sample 02	5,067	3,027	2,040	167%
Sample 03	4,919	4,092	827	120%
Sample 04	4,939	4,363	576	113%
Sample 05	4,691	2,248	2,443	208%
Sample 06	4,943	4,102	841	120%
Sample 07	4,835	4,166	669	116%
Sample 08	4,776	4,207	569	113%
Sample 09	5,004	3,682	1,322	135%
Sample 10	4,505	1,871	2,634	240%
Sample 11	4,707	3,631	1,076	129%
Sample 12	5,641	4,330	1,311	130%
Sample 13	4,549	4,396	153	103%
Sample 19	5,590	4,110	1,480	136%
Sample 20	5,812	4,367	1,445	133%
Sample 21	5,784	4,256	1,528	135%
Sample 23	7,460	3,967	3,493	188%

**The Fossil LL6 Chondrite** These meteorite fragments were dated in 2010 by scientists from Australia, South Africa, England and Finland. <sup>48</sup> Some dates are over 4,000 percent discordant. <sup>49</sup>The oldest dates are as old as the evolutionist age of the galaxy. <sup>49</sup>

Table 22					
Sample	Maximum Age	Minimum Age	Age Difference	Percent	
Name	Million Years	Million Years	Million Years	Difference	
Α	2,065	164	1,902	1,263%	
В	2,849	924	1,925	308%	
С	2,043	177	1,867	1,157%	
D	7,119	174	6,945	4,082%	
Е	3,889	249	3,640	1,563%	
F	11,250	5,475	5,775	205%	

# K/Ar Age Determinations of Iron Meteorites

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

Table 23				
Meteorite	Maximum	Minimum	Difference	Percentage
K-Ar Dating	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>	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. <sup>52</sup> The dates listed in the original article <sup>53</sup> 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.

		<b>Table 24</b>		
Sample	Maximum	Minimum	Difference	Percent
Name	Million Years	<b>Million Years</b>	Million Years	Difference
TABLE 1A	3,176	190	2,986	1672%
TABLE 1B	5,006	422	4,584	1186%
TABLE 2	6,130	950	5,180	645%
TABLE 4	2,515	500	2,015	503%
TABLE 5	7,100	510	6,590	1392%

# 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.<sup>54</sup> One of the meteorites was dated at almost ten billion years old. <sup>55</sup>

<u>Table 25</u>			
Maximum Age	9,500	Million Years	
Minimum Age	4,460	Million Years	
Average Age	5,161	Million Years	
Age Difference	5,040	Million Years	
Difference	213%	Percent	
Standard Deviation	1.753	Million Years	

### **Antarctic LL-Chondrites**

This sample as dated in 1990 by the Department of Earth Sciences, Faculty of Science, Kobe University, Japan.<sup>56</sup> Some were dated as being older than the evolutionist age of the Solar System.<sup>57</sup>

	<u>Table 26</u>	
Maximum Age	7,330	Million Years
Minimum Age	3,110	Million Years
Average Age	4,410	Million Years
Age Difference	4,220	Million Years
Difference	235%	Percent
Standard Deviation	950	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. <sup>58</sup> The dating of one rock produced dates that varied by over 300 percent.<sup>59</sup>

	<u>Table</u>	27
Maximum Age	4,909	<b>Million Years</b>
Minimum Age	1,452	<b>Million Years</b>
Average Age	4,091	<b>Million Years</b>
Age Difference	3,457	<b>Million Years</b>
Difference	338%	Percent

A joint paper by scientist from Australia, USA, Denmark and France. <sup>60</sup> 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. <sup>61</sup>

# **Meteorite Dating**

Table 28			
Potential problem	Level of awareness and suggested actions		
1	1		
Presence of non-radiogenic Pb of unknown isotopic composition.	Recognized by most of the community.		
The most important and common problem of all.	Better methods for removal of non-radiogenic Pb are required.		
2	2		
Deviations from closed system evolution (loss of Pb, gain or loss of U).	Requires monitoring U–Pb concordance and studying distribution of U and radiogenic Pb.		
Important and common.			
3	3		
Mis-identification of the processes that start or reset the isotopic clocks. 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		
	to the studies in mineralogy and petrology of meteorites.		
4	4		
Analytical problems (fractionation, instrument- specific etc.) and blank subtraction.	Problems are widely recognized. Ongoing analytical developments help to reduce them.		
Important.			
5	5		
Fractionation of radiogenic Pb isotopes induced by leaching of alpha recoil tracks.	Recognized by some "terrestrial" geochronologists, less known to meteoriticists. Detailed experimental studies are required to understand the		
Potentially important.	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.<sup>62</sup> The dates [Table 29] varied by almost one thousand percent!<sup>63</sup> 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.<sup>63</sup>

Table 29					
Sample	Maximum Age	Minimum Age	Age Difference	Percent	
Name	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>	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%	

# **Meteorite Dating**

<u>Table 30</u>				
<u>Meteorite</u>	<b>Fission Track</b>	K-Ar	U-He	Rb-Sr
<u>Name</u>	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>
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.<sup>64</sup>

Met	eorne Dar ar C	Falli
Maximum Age	3,725	Million Years
Minimum Age	1,749	Million Years
Average Age	3,120	Million Years
Age Difference	1,976	Million Years
Difference	213%	Percent
	Table 31	

#### Meteorite Dar al Gani<sup>65</sup>

The Kirin Chondrite was dated in 1981 by scientists from the Research School of Earth Sciences, The Australian National University. Canberra.<sup>66</sup>

The	<u>Kirin Chondrit</u>	<u>e "'</u>
Maximum Age	4,310	Million Years
Minimum Age	520	Million Years
Average Age	3,160	Million Years
Age Difference	3,790	Million Years
Difference	828%	Percent
	Table 32	

The Acapulco Meteorite was dated in 2003 by scientists from the Department of Earth and Planetary Science, University of California, Berkeley.<sup>68</sup>

(U-Th)/He ages from Acapulco Meteorite <sup>69</sup>				
Maximum Age	4,909	Million Years		
Minimum Age	1,452	Million Years		
Average Age	4,091	Million Years		
Age Difference	3,457	Million Years		
Difference	338%	Percent		
Table 22				



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." <sup>70</sup> The diagram above is taken from his work. <sup>70</sup>

These whole rock nakhiltes were dated in 2004 by scientists from the Lunar and Planetary Laboratory, University of Arizona, Tucson, Arizona.<sup>71</sup>

40Ar-39Ar Studies of Whole Rock Nakhlites <sup>72</sup>					
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				

Table 34

The Kirin Chondrite was dated in 1980 by scientists from the Research School of Earth Sciences, The Australian National University. Canberra.<sup>73</sup>

History Of The Kirin Chondrite				
Table	Maximum	Minimum	Difference	Difference
Number	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>	Percent
Kirin-1	4.36	2.16	2.2	102%
Kirin-2	4.06	0.48	3.58	746%
Table 35				

#### History Of The Kirin Chondrite <sup>74</sup>

# **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.<sup>75</sup> According to isochron diagrams in the original article, the meteorite's true age is 200 million years old. <sup>76</sup> If we take the list of <sup>207</sup>Pb/<sup>206</sup>Pb ratios in this article <sup>77</sup> and run them through Isoplot we get the dates as shown in table 36 below.

<u>Table 36</u>			
Sample	Pb-207/206	Pb-207/206	
Name	Ratio	Age	
SHR04.1	0.889	5,071	
SHRO5.1	0.916	5,114	
SHR06.1	0.788	4,900	
SHR13.1	0.876	5,051	
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	5,123	
SHR26.2	0.831	4,976	
SHR27.1	0.867	5,036	
SHR28.1	0.813	4,945	
SHR29.1	0.827	4,969	

### Ion microprobe U-Th-Pb dating

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

<u>Table 37</u>				
Sample	Pb-207/206	Pb-207/206		
Name	Ratio	Age		
LAFA01.01	0.7907	4,905		
LAFA03.01	0.3969	3,897		
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.<sup>81</sup> Four of the meteorites dated to be older than the evolutionist age of the Solar System.<sup>82</sup> One date to be older than the Big Bang.<sup>82</sup> The discordance between dates varied from hundreds to thousands of percent in error.<sup>82</sup>

Table 38				
Table	Max Age	Min Age	Difference	Percentage
Name	Million Years	Million Years	Million Years	Difference
A1	17,178	570	16,608	2,914%
A2	3,660	324	3,336	1,030%
A3	3,720	703	3,017	429%
A4	7,800	904	6,896	763%
A5	7,100	922	6,178	670%
A6	8,500	526	7,974	1,516%

### **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. <sup>83</sup> The article states that the meteorite's true age is 3.6 billion years. <sup>84</sup> If we take the list of <sup>207</sup>Pb/<sup>206</sup>Pb ratios in this article <sup>85</sup> 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	4,832		
Plag(L)	0.787456711	4,899		
Px(R)	0.580150952	4,459		
Px(L)	0.699212521	4,729		
WR(R)	0.480536633	4,183		
WR(L)	0.489632855	4,210		
Ilm	0.498182294	4,236		
Heated Sample				
Plag(R)	0.773980154	4,875		
Plag(L)	0.640266469	4,602		
Plag-rej	0.61697479	4,548		
Px(R)	0.655620155	4,636		
Px(L)	0.623966942	4,565		
Px-rej	0.565672185	4,422		
WR(R)	0.500867867	4,244		
WR(L)	0.515289324	4,286		
Ilm	0.498417311	4,237		
NBS-981	0.913501361	5,110		
Faraday–Daly	0.913967671	5,111		

I downloaded this table from the official Meteoritics website. <sup>86</sup> 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

Sample	Max Age	Min Age	Difference	Percentage
Name	Million Years	<b>Million Years</b>	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.<sup>87</sup> 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.<sup>87</sup>

		<u>Table 41</u>		
Meteorite	Maximum Age	Minimum Age	Difference	Percentage
Name	<b>Billion Years</b>	<b>Billion Years</b>	<b>Billion Years</b>	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. <sup>88</sup> The dates <sup>89</sup> below in table 42 give numerous values much older than the so called age of the Solar System.

Meteorite	206Pb/238U	207Pb/235U	207Pb/206Pb
Name	Million Years	Million Years	Million Years
Bruderheim-1	4126	4447	4647
Bruderheim-2	4542	4592	4628
Bruderheim-3	4959	4703	4605
			4,613
<b>Richardton-1</b>	8615	5602	4604
			4,638
<b>Richardton-2</b>	6834	5230	4633
			4,616
Pultusk	5334	4939	4657
			4,651

If we take the list of <sup>207</sup>Pb/<sup>206</sup>Pb ratios in this article <sup>90</sup> 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-ll	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
<b>Richardton-I</b>	2,155	1,794	0.8325	4,978
	2,187	1,796	0.8212	4,959
<b>Richardton-ll</b>	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 <sup>207</sup>Pb-<sup>206</sup>Pb ages of Eucrites This dating was done in 2005 by scientists from the Antarctic Meteorite Research Centre, Tokyo, Japan. <sup>91</sup> Several dates <sup>92</sup> 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	<b>Million Years</b>	<b>Million Years</b>	<b>Million Years</b>	
Yamato-75011	5,070	4,548	4,863	
Yamato-				
792510	5,300	4,613	4,899	
Asuka-881388	4,825	3,847	4,404	
Asuka-881467	4,911	4,569	4,673	
Padvalninkai	5,223	3,102	4,537	

<sup>40</sup>Ar/<sup>39</sup>Ar Dating Of Desert Meteorites Dated in 2005 by scientists <sup>93</sup> from Germany and Russia, these meteorite samples gave astounding results. Many dates were older than the evolutionist age of the Solar System. <sup>94</sup>

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. <sup>95</sup> Many dates were older than the evolutionist age of the Solar System. <sup>96</sup>

<u>Table 46</u>		
Bulk Sample	Million Years	
	9,670	
	8,560	
	8,127	
	6,256	
Glass Sample	Million Years	
	9,905	
	7,388	
	5,708	

#### **Conclusion**

Brent Dalrymple states in his anti creationist book <u>The Age of the Earth</u>: "Several events in the formation of the Solar System can be dated with considerable precision." <sup>97</sup>

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." <sup>98</sup>

I his book he gives a table <sup>99</sup> 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.

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