The Geological Timescale Versus Radiometric Dating

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The Orosirian Period

2,050 To 2,300 Million Years Ago

1. Location of Extraneous Argon,

Chemical Geology, 1990, Volume 80, Pages 201 - 204

40Ar/39Ar	40Ar/39Ar	40Ar/39Ar	40Ar/39Ar	40Ar/39Ar	40Ar/39Ar
13,435	5,008	15,407	10,776	11,621	22,090
13,287	5,410	11,804	7,689	11,396	20,742
13,263	5,712	7,995	7,318	11,389	20,272
11,783	5,739	6,045	6,452	11,382	20187
9,228	5,892		6,424	11,288	19,945
7,492	5,983		5,564	11,041	16,224
6,489	6,453		5,360	10,889	14,689
6,303	6,785			10,873	13,750
6,027	6,939			10,736	12,780
5,062	7,372			10,729	11,961
	7,779			10,685	11,568
	8,071			10,617	11,448
				10,610	10,790
				10,578	10,310
				10,521	10,232
				10,314	8,906
				10,102	8,311
				10,097	7,361
				9,943	
				9,899	
				9,874	
				9,684	
				9,564	
				9,276	
				9,150	

2. U-Pb Step-Leaching Ages,

Chemical Geology, Volume 236 (2007) Pages 27-41

207Pb/206Pb	207Pb/206Pb	206Pb/238U	206Pb/238U
5,014	4,821	17,743	1,906
5,013	4,655	10,492	1,178
5,006	4,596	10,451	1,094
5,003	4,591	9,734	1,091
4,996	4,589	9,130	1,080
4,989	4,536	8,693	1,071
4,987	4,444	8,228	876
4,986	4,317	7,569	734
4,983	4,274	6,954	693
4,977	4,266	5,983	646
4,965	4,261	5,664	632
4,949	4,240	5,618	604
4,944	4,176	4,689	567
4,935	4,137	3,689	544
4,873	4,128	2,444	536
4,850	3,978	1,970	506

3. Petrology and Geochemistry of Target Rocks,

Geochimica et Cosmochimica Acta, 1998, Volume 62, Number 12, Pages 2179-2196

87Rb/86Sr	87Rb/86Sr	87Rb/86Sr
7,015	5,980	5,384
6,932	5,804	5,111
6,761	5,795	4,926
6,322	5,687	4,576
6,146	5,603	4,479
5,994	5,439	3,537

4. Hebi, North China Craton,

Chemical Geology, Volume 328 (2012), Pages 123–136

187Os/188Os	187Re/188Os	187Re/188Os
1,794	2,100	2,300
2,372	2,600	2,900
1,930	2,300	3,400
1,901	2,200	-3,100
1,356	1,800	8,400
1,791	2,100	2,500
1,961	2,300	3,000
1,953	2,300	4,600

5. Lithospheric Mantle Evolution,

Lithos, Volume 125, 2011, Pages 405-422

187Os/188Os	187Re/188Os	187Re/188Os
-6	550	350
-2,281	-1,820	-1,750
-906	-660	-480
583	1,510	870
1,647	2,200	1,820
-1,512	3,880	-1,040
3,398	4,840	3,360
829	1,150	1,090
1,042	2,090	1,290
616	1,750	900
469	1,460	760
1,991	3,700	2,130
2,024	8,620	2,160
1,500	-3,610	1,700
1,173	-12,070	1,410
1,778	-9,600	1,940
976	1,430	1,230
1,614	3,420	1,800
92	900	440
1,385	2,360	1,600
731	1,610	1,010
812	1,570	1,080
1,025	1,400	1,270
698	1,110	970
911	-24,710	1,170
-1,364	-1,570	-900
-1,413	-3,510	-950

6. Trace Element And Sr And Nd Isotope,

Earth and Planetary Science Letters, Volume 80, 1986, Pages 281-298

147Sm/144Nd	87Rb/86Sr
2,090	2,210
2,900	1,790
1,450	1,660
1,100	1,430
1,630	530
3,200	1,930

7. Re–Os Isotopic Results,

Chemical Geology, Volume 291 (2012), Pages 186–198

187Os/188Os	187Re/188Os	187Re/188Os
655	2,050	1,260
-57	3,280	720
-93	4,630	700
236	2,500	940
151	10,430	910
-80	2,340	690
-675	-210	250
-333	2,140	480
43	2,130	780
583	2,590	1,220
-423	1,580	400
1,367	2,320	1,820
-219	3,240	580

8. Zircon U-Pb Ages Of Guyana Greenstone,

Precambrian Research, Volume 17 (1982), Pages 199-214

207Pb/206Pb	206Pb/238U	207Pb/235U
2,249	2,218	44,242
2,242	2,021	42,199
2,236	1,838	40,561
2,226	1,835	39,861
2,217	1,806	39,839
2,210	1,776	39,833
2,206	1,617	37,640
2,183	1,339	33,871
2,177	1,327	33,447
2,155	878	27,142

References

1. **Location of extraneous argon, Chemical Geology, 1990, Volume 80, Pages 201 - 204**
2. **U-Pb Step-Leaching Ages, Chemical Geology, Volume 236 (2007) Pages 27-41**
3. **Petrology and geochemistry of target rocks, Geochimica et Cosmochimica Acta, 1998, Volume 62, Number 12, Pages 2179-2196**
4. **Hebi, North China Craton, Chemical Geology, Volume 328 (2012), Pages 123–136**
5. **Lithospheric Mantle Evolution, Lithos, Volume 125, 2011, Pages 405-422**
6. **Trace Element And Sr And Nd Isotope, Earth and Planetary Science Letters, Volume 80, 1986, Pages 281-298**
7. **Re–Os Isotopic Results, Chemical Geology, Volume 291 (2012), Pages 186–198**
8. **Zircon U-Pb Ages Of Guyana Greenstone, Precambrian Research, Volume 17 (1982), Pages 199-214**