Age determinations from other publications-list 3

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Isochron/West, Bulletin of Isotopic Geochronology, v. 25, pp. 9

Isochron/West was published at irregular intervals from 1971 to 1996. The journal was patterned after the journal *Radiocarbon* and covered isotopic age-dating (except carbon-14) on rocks and minerals from the Western Hemisphere. Initially, the geographic scope of papers was restricted to the western half of the United States, but was later expanded. The journal was sponsored and staffed by the New Mexico Bureau of Mines *(now Geology)* & Mineral Resources and the Nevada Bureau of Mines & Geology.

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AGE DETERMINATIONS FROM OTHER PUBLICATIONS—LIST 3

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This is the third list summarizing age determinations that have appeared in recent months in other publications. The dates are grouped alphabetically by country; for Canada, Mexico, and the United States, by state or province. Under each geographical subdivision the ages are listed from oldest to youngest. The numbers in the citation column correspond with the numbered references at the end of the article. The letters in the laboratory column correspond with the key at the end of the list. Because of the abbreviated nature of the data, the user should refer to the original article for additional details.

This third list completes coverage of the following journals issued during 1978: American Association of Petroleum Geologists Bulletin (vol. 62); American Journal of Science (vol. 278); Canadian Journal of Earth Sciences (vol. 15); Earth and Planetary Science Letters (vol. 37–41); Economic Geology (vol. 73); Geochimica et Cosmochimica Acta (vol. 42); Geological Society of America Abstracts with Programs (vol. 10, nos. 1-3, 5, 7); Geological Society of America Bulletin (vol. 89); Geology (vol. 6); Journal of Geology (vol. 86, nos. 1-2); Journal of Research of the U. S. Geological Survey (vol. 6); and U. S. Geological Survey Open-File Report 78-701.

We would appreciate receiving any suggestions of additional journals which should be included. Also appreciated would be any corrections and/or suggested improvements.

AGE (MY)	MINERAL	FORMATION/ROCK	LOCATION	METHOD	SAMPLE NUMBER	LAB	CITATION
ARGENTINA							
797±18	clays	sediments of "La Tinta" series	Aust Quarry, Olavarria region	Rb-Sr			11
756±22	clays	sediments of "La Tinta" series	Aust Quarry, Olavarria region	Rb-Sr			11
709±24	clays	sediments of "La Tinta" series	Cerro Negro, Olavarria region	Rb-Sr			11
632	clays	sediments of "La Tinta" series	Barker region	K-Ar			11
374	clays	sediments of "La Tinta" series	Barker region	K-Ar			11
75±2	tuff	Tobas Inferiores Formation Andacollo Series	37°10'S, 70°38'W western Argentina	K-Ar	9006	S	90
73±2	tuff	Tobas Inferiores Formation Andacollo Series	37°10'S, 70°38'W western Argentina	K-Ar	9006	S	90
67±3	tuff	Tobas Inferiores Formation Andacollo Series	37°10'S, 70°38'W western Argentina	K-Ar	9001	S	90
65±3	tuff	Tobas Inferiors Formation Andacollo Series	37°10'S, 70°38'W western Argentina	K-Ar	9010	S	90
BOLIVIA							
16.5±0.6	biotite	ignimbrite	19°57.8'S, 68°40.5'W	K-Ar	A142-2	G	5
11.7±2.7	whole rock	andesite	20°18'S, 68°45.5'W	K-Ar	A150	G	5
11.1±0.4	whole rock	andesite	19°50'S, 67°33.8'W	K-Ar	B4	G	5
10.8±0.6	whole rock	andesite	19°55'S, 68°37.3'W	K-Ar	A101	G	5
10.2±0.4	biotite	ignimbrite	22°10.5'S, 67°19.8'W	K-Ar	B60	G	5
9.4±0.4	biotite	Ujina Ignimbrite	21°06.8'S, 68°39.5'W	K-Ar	A66	G	5
9.2±0.4	whole rock	andesite	19°52.8'S, 68°41.5'W	K-Ar	A103	G	5
8.9±0.8	biotite	andesite	21°06.3'S, 68°22.3'W	K-Ar	A164-1	G	5
8.9±0.4	biotite	ignimbrite	19°35'S, 66°45'W	K-Ar	B35	G	5
8.7±0.4	biotite	andesite	21°05'S, 68°22.5'W	K-Ar	A117	G	5
7.9±0.9	biotite	ignimbrite	21°57.8'S, 67°20.5'W	K-Ar	B63	G	5

BOLIVIA (continued)

7.8±0.3	biotite	ignimbrite	19°45'S, 66°20'W	K-Ar	B34	G	5
7.8±0.3	biotite	andesite	22°03.5'S, 67°52.8'W	K-Ar	B51	G	5
7.5±0.4	biotite	ignjmbrite	22°03.5'S, 67°52.8'W	K-Ar	A164-2	G	5
7.0±0.4	biotite	ignimbrite	19°29'S, 67°21.5'W	K-Ar	B26	G	5
6.4±0.3	biotite	ignimbrite	21°28'S, 67°36'W	K-Ar	B73	G	5
5.9±0.3	biotite	Chuhuilla Ignimbrite	21°23'S, 67°41.8'W	K-Ar	B39	G	5
5.4±0.3	biotite	Carcote Ignimbrite	21°08.5'S, 68°19'W	K-Ar	A48	G	5
4.9±0.6	biotite	ignimbrite	18°50'S, 68°12'W	K-Ar	B28	G	5
4.6±0.5	whole rock	andesite	21°20'S, 68°01.3'W	K-Ar	B43	G	5
4.5±0.3	biotite	andesite	19°37.5'S, 67°38.8'W	K-Ar	B15	G	5
4.2±0.4	biotite	andesite	19°39'S, 67°59.5'W	K-Ar	B16-2	G	5
3.9±0.3	biotite	andesite	21°42.5'S, 68°01.5'W	K-Ar	B46	G	5
3.8±0.2	biotite	ignimbrite	20°23'S, 66°52'W	K-Ar	B75	G	5
3.3±0.2	biotite	andesite	20°06.5'S, 68°48.5'W	K-Ar	A145	G	5
3.2±0.4	biotite	ignimbrite	21°44.5'S, 68°01'W	K-Ar	B47	G	5
3.2±0.2	biotite	ignimbrite	21°23.3'S, 67°38'W	K-Ar	B36-2	G	5
2.5±0.5	plagioclase	andesite	19°52'S, 67°34'W	K-Ar	B5	G	5
1.9±0.2	biotite	ignimbrite	22°11'S, 67°30.8'W	K-Ar	B57	G	5
1.8±0.2	biotite	andesite	19°46'S, 67°38.3'W	K-Ar	B6-1	G	5
1.7±0.5	hornblende	ignimbrite	22°17.5'S, 67°45.8'W	K-Ar	B52	G	5
0.73±0.16	biotite	Collacaqua Ignimbrite	20°02'S, 68°49.5'W	K-Ar	A140	G	5

BRAZIL

562±19	whole rock	dikes	near Fortaleza	Rb-Sr			79
544±15	whole rock	Mocambo granite	near Fortaleza	Rb-Sr			79
485±14	whole rock	Meruoca granite	near Fortaleza	Rb-Sr			79
120	zircon	kimberlite		U-Pb			25
80–93	zircon	kimberlite		U-Pb			25

CANADA
Alberta

63.0	sanidine	bentonite	Red Deer Valley	K-Ar	73–1		3
63.0	sanidine	bentonite	Red Deer Valley	K-Ar	73–1		3
63.3	sanidine	bentonite	Red Deer Valley	K-Ar	75–102		3
63.2	sanidine	bentonite	Red Deer Valley	K-Ar	75–100		3
62.8	sanidine	bentonite	Red Deer Valley	K-Ar	75–100		3
63.0	sanidine	bentonite	Red Deer Valley	K-Ar	75–104A		3
62.7	sanidine	bentonite	Red Deer Valley	K-Ar	75–104A		3
63.0	sanidine	bentonite	Red Deer Valley	K-Ar	74–1		3
63.3	sanidine	bentonite	Red Deer Valley	K-Ar	74–1		3
63.5	sanidine	bentonite	Red Deer Valley	K-Ar	75–400		3
63.5	sanidine	bentonite	Red Deer Valley	K-Ar	75–400		3

British Columbia

177	whole rock	Ecstall Pluton granite	near Prince Rupert	Rb-Sr			39
70–166	muscovite	Wolverine Complex amphibolite schist		Rb-Sr	(<26 samples)		66
68	zircon	Wolverine Complex amphibolite schist		U-Pb			39
51±2	whole rock	Quottoon Pluton granite	near Prince Rupert	Rb-Sr			39

Labrador

1960	pitchblende	Gear showing		U-Pb		F	34

CANADA

Labrador (continued)

1894±91	whole rock	Ketilidian granite gneiss	West Greenland(?)	Rb-Sr			43
1805	pitchblende	Inda showing		U-Pb		F	34
1745	pitchblende	Michelin showing		U-Pb		R	34
1730	pitchblende	Kitts deposit		U-Pb		F	34
1659	whole rock	Aillik Group rhyolite Michelin deposit		Rb-Sr		F	34
1364	pitchblende	Emben showing		U-Pb		F	34
1244	pitchblende	Michelin deposit		U-Pb		F	34
919±26	biotite	dike, Michelin deposit		K-Ar		F	34

Manitoba

1832—1979	galena	Precambrian volcanics	Fox Lake sulfide deposit 56°30'N, 101°45'W	U-Pb	SP-1785	F	78
1787—1854	sphalerite	Precambrian volcanics	Sherridon sulfide deposit 55°N, 101°W	U-Pb	SP-1841	F	78
1768—1794	galena	Precambrian volcanics	Ruttan sulfide deposit 56°30'N, 99°30'W	U-Pb	SP-2318	R	78

Newfoundland

884±15	hornblende	Indian Head Range Complex	southwest Newfoundland	Ar-Ar	3	GG	22
879±15	hornblende	Indian Head Range Complex	southwest Newfoundland	Ar-Ar	2	GG	22
835±15	biotite	Indian Head Range Complex	southwest Newfoundland	Ar-Ar	1B	GG	22
827±15	biotite	Indian Head Range Complex	southwest Newfoundland	Ar-Ar	1A	GG	22
812±15	biotite	Indian Head Range Complex	southwest Newfoundland	Ar-Ar	2	GG	22
440	biotite	Long Island pluton	Bay of Exploits	K-Ar		L	83
429±50	whole rock	Cape St. John Group Ignimbrites	Burlington Peninsula	Rb-Sr		Z	72
422±40	whole rock	Burlington granodiorite	Burlington Peninsula	Rb-Sr		Z	72
413±10	whole rock	Dunamagon granite	Burlington Peninsula	Rb-Sr		Z	72
393±25	whole rock	Cape Brule' porphyry	Burlington Peninsula	Rb-Sr		Z	72
380±20	whole rock	Ragged Harbour and Round Pond pluton	Ragged Harbour	Rb-Sr		L	83
375±15	whole rock	Mic Mac Group Ignimbrites	Burlington Peninsula	Rb-Sr		Z	72
358	biotite	Dunamagon granite	Burlington Peninsula	Rb-Sr		Z	72
356	biotite	Dunamagon granite	Burlington Peninsula	Rb-Sr		Z	72
343±15	whole rock	Cape St. John Group Ignimbrites	Burlington Peninsula	Rb-Sr		Z	72
334	biotite	Dunamagon granite	Burlington Peninsula	Rb-Sr		Z	72

Northwest Territories

3155	zircon	basement rock beneath Yellow Knife sediments	Point Lake	U-Pb			47
2870	zircon	granodiorite clast, basement rock	Point Lake	U-Pb			47
94.9±2.7	tremolite and biotite	Cantung deposit amphibole skarn	Tungsten 61°57'N, 128°15'W	K-Ar	U43-20A	P	1
92.3±2.5	biotite	Cantung deposit biotite skarn	Tungsten 61°57'N, 128°15'W	K-Ar	U43-19E	P	1
91.6±2.6	biotite	Cantung deposit quartz monzonite	Tungsten 61°57'N, 128°15'W	K-Ar	AHC-11	P	1
89.9±2.4	muscovite	Cantung deposit quartz wall rock	Tungsten 61°57'N, 128°15'W	K-Ar	ZKA-1	P	1

Nova Scotia

412±4	slate	Halifax Formation		K-Ar	71-140	D(?)	73
408±12	slate	Halifax Formation		Ar-Ar	72-30	D(?)	73

CANADA
Nova Scotia (continued)

405±14	slate	Halifax Formation		Ar-Ar	71-139	D(?)	73
405±14	slate	Halifax Formation		Ar-Ar	72-31	D(?)	73
397±10	slate	Halifax Formation		K-Ar	71-139	D(?)	73
396±18	slate	Halifax Formation		Ar-Ar	72-30	D(?)	73
392±12	slate	Halifax Formation		K-Ar	72-31	D(?)	73
385±16	slate	Halifax Formation		K-Ar	71-153	D(?)	73
382±14	hornfels	Halifax Formation		Ar-Ar	71-16	D(?)	73
382±12	slate	Halifax Formation		K-Ar	72-33	D(?)	73
374±20	slate	Halifax Formation		Ar-Ar	71-153	D(?)	73
372±16	hornfels	Halifax Formation		K-Ar	71-16	D(?)	73
371±12	cordierite slate	Halifax Formation		K-Ar	71-146	D(?)	73
361±12	cordierite slate	Halifax Formation		Ar-Ar	71-146	D(?)	73

Ontario

3120±78		Fred's Flow (komatiite) Theo's Flow (tholeiitic sill) Pike's Hill Complex (flow)	Munroe Township	Rb-Sr	(3 samples) (4 samples) (2 samples)		97 97 97
3065±245	whole rock	tonalitic gneiss	Lac Seul area	Rb-Sr	(14 samples)		94
2959±3	zircon	rhyolite, Uchi Lake greenstone belt	northwestern Ontario	U-Pb	(cycle 1 rhyolite)	N	65
2885±140	whole rock	tonalitic gneiss	Lac Seul area	Rb-Sr	(11 samples)		94
2800±12	zircon	rhyolite, Uchi Lake greenstone belt	northwestern Ontario	U-Pb	(cycle 2 rhyolite)	N	65
2765±47		Munroe-Warden (tholeiite) sill Fred's Flow (komatiite)	Munroe Township	Sm-Nd isochron	(5 samples) (4 samples)		97 97
2738±5	zircon	rhyolite, Uchi Lake greenstone belt	northwestern Ontario	U-Pb	(cycle 3 rhyolite)	N	65
2725±10	zircon	lower unit of rhyolite and dacite volcanics	south of Timmins	U-Pb	(2 analyses)		64
2711±6	zircon	rhyodacite	north of Kirkland Lake	U-Pb	(3 analyses)		64
2710±6	zircon	upper unit of rhyolite and dacite volcanics	south of Timmins	U-Pb	(3 analyses)		64
2700±4	zircon zircon	rhyolite flow subvolcanic porphyry	north of Kirkland Lake	U-Pb U-Pb	(2 analyses) (2 analyses)		64 64
2660	zircon	granite	Lac Seul area	U-Pb	(1 sample)		94
2610	whole rock	granite	Lac Seul area	Rb-Sr			94
2590±15	biotite	Shelly Lake granite	48°27'N, 91°22'W	Ar-Ar	(1 sample)		8
1332±18	biotite	Mackenzie dolerite	66°22'N, 87°41'W	Rb-Sr	FA-66050(6)	II	67
1251±18	biotite	Mackenzie dolerite sill intrusion	62°34'N, 110°13'W	Rb-Sr	FA-66018(5)	II	67
1206±37	whole rock	Sudbury dolerite	46°03'N, 82°35'W	Rb-Sr	FA-83-63(3)	II	67
1205±18	biotite	Sudbury dolerite	46°03'N, 82°35'W	Rb-Sr	FA-83-63(3)	II	67
1204±39	whole rock	Mackenzie dolerite	64°38'N, 111°39'W	Rb-Sr	FA-179-62(4)	II	67
1208±18	biotite	Sudbury dolerite	47°08'N, 80°18'W	Rb-Sr	FA-86-63(2)	II	67
1197±46	whole rock	Sudbury dolerite	47°08'N, 80°18'W	Rb-Sr	FA-86-63(2)	II	67
1194±18	biotite	Sudbury dolerite	46°10'N, 81°45'W	Rb-Sr	FA-6-62(3)	II	67
1194±18	biotite	Sudbury dolerite	46°03'N, 82°35'W	Rb-Sr	FA-83-63(3)	II	67
1189±18	biotite	Sudbury dolerite	47°08'N, 80°18'W	Rb-Sr	FA-86-63(2)	II	67
1050–1100	microcline	Shelly Lake granite	48°27'N, 91°22'W	Ar-Ar	(2 samples)		8
925	whole rock	diabase dike	northeast of Kingston	Ar-Ar	K2-3B	K	74

CANADA
Ontario (continued)

925	whole rock	diabase dike	northeast of Kingston	Ar-Ar	WF 9-2A	K	74
915	whole rock	diabase dike	northeast of Kingston	Ar-Ar	K6-1	K	74
894	whole rock	diabase dike	northeast of Kingston	Ar-Ar	K3-4B	K	74
874	whole rock	diabase dike	northeast of Kingston	Ar-Ar	K5-2B	K	74
580	whole rock	diabase dike	northeast of Kingston	Ar-Ar	K10-2B	K	74
420	whole rock	diabase dike	northeast of Kingston	Ar-Ar	K14-7B	K	74
Quebec							
954±40	biotite	Saint-Marguerite Complex	Saint-Malachie	Rb-Sr	AV-616C	AA	89
900±7	amphibole	Saint-Marguerite Complex	Saint-Malachie	K-Ar	MGA-1	AA	89
891±7	amphibole	Saint-Marguerite Complex	Saint-Malachie	K-Ar	MGB-2B	AA	89
835±7	amphibole	Saint-Marguerite Complex	Saint-Malachie	K-Ar	MGA-2A	AA	89
411±15	biotite	biotite tonalite(?)	48°18.2'N, 71°47.1'W	K-Ar	7	E	57
Saskatchewan							
1720—1778	galena	Precambrian volcanics	Will Group sulfide deposit 55°15'N, 105°15'W	U-Pb	SP-2156	R	78
1700	whole rock	basement rock, Key Lake uranium deposit	northern Saskatchewan	K-Ar			92
1700	whole rock	basement rock, Key Lake uranium deposit	northern Saskatchewan	Rb-Sr			92
1270	pitchblende	Key Lake uranium deposit	northern Saskatchewan	U-Pb	(2 drill cores)		92
1200	pitchblende	Key Lake uranium deposit	northern Saskatchewan	U-Pb	(1 drill core)		92
918	pitchblende	Key Lake uranium deposit	northern Saskatchewan	U-Pb	(2 drill cores)		92
~270	pitchblende	Key Lake uranium deposit	northern Saskatchewan	U-Pb	(2 drill cores)		92
100	pitchblende	Key Lake uranium deposit	northern Saskatchewan	U-Pb	(1 drill core)		92
0.63±0.12	glass	Wascana Creek Ash	Saskatchewan	fission track		K	12
Yukon							
1.25±0.25	glass	Mosquito Gulch tephra	Bonanza Creek, near Dawson, west-central Yukon	fission track	UT 19	K	12
<0.04±0.04	glass	Old Crow tephra	Porcupine and Old Crow Rivers, northwestern Yukon	fission track	UT 1	K	12
CHILE							
470	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-14B	FF	37
470	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-14C	FF	37
308	whole rock(?)	quartz diorite	northern Chile	Rb-Sr	41	FF	37
268	biotite	quartz diorite	northern Chile	Rb-Sr	41	FF	37
282	whole rock(?)	sericite-quartz porphyry	northern Chile	Rb-Sr	26B	FF	37
276	whole rock(?)	rhyodacite	northern Chile	Rb-Sr	10	FF	37
271	whole rock(?)	sericite-quartz porphyry	northern Chile	Rb-Sr	26A	FF	37
269	feldspar	quartz diorite	northern Chile	Rb-Sr	38	FF	37
269	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-38B	FF	37
269	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-38C	FF	37
269	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-38D	FF	37
268	whole rock(?)	altered quartz diorite	northern Chile	Rb-Sr	34	FF	37
268	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-34	FF	37
268	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-41	FF	37
255	whole rock(?)	diorite	northern Chile	Rb-Sr	17	FF	37
255	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-17	FF	37

CHILE (continued)

252	whole rock(?)	quartz diorite	northern Chile	Rb-Sr	11	FF	37
246	biotite	quartz diorite	northern Chile	Rb-Sr	11	FF	37
251	whole rock(?)	quartz porphyry	northern Chile	Rb-Sr	9	FF	37
250	whole rock(?)	rhyodacite	northern Chile	Rb-Sr	13B	FF	37
246	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-11	FF	37
246	whole rock(?)	altered rhyodacite(?)	northern Chile	Rb-Sr	22	FF	37
246	whole rock(?)	quartz porphyry	northern Chile	Rb-Sr	16	FF	37
244	biotite	quartz diorite	northern Chile	Rb-Sr	37	FF	37
244	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-37	FF	37
233	whole rock(?)	altered rhyodacite(?)	northern Chile	Rb-Sr	25	FF	37
218	whole rock(?)	adamellite	northern Chile	Rb-Sr	31	FF	37
218	whole rock(?)	adamellite	northern Chile	Rb-Sr	31A	FF	37
194±67	whole rock	adamellite	Victoria Island 45°11'S, 73°51'W	Rb-Sr	(1 sample)		38
	whole rock	granodiorite			(2 samples)		38
186	whole rock(?)	andesite	northern Chile	Rb-Sr	33	FF	37
176	biotite	granodiorite		Rb-Sr	H-74-24B		38
160	biotite	quartz diorite	northern Chile	Rb-Sr	27	FF	37
160	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-27	FF	37
132	biotite	monzonite		Rb-Sr	H-74-23A		38
130	biotite	quartz diorite		Rb-Sr	H-74-18A		38
128	biotite	monzonite		Rb-Sr	H-74-23B		38
127	biotite	quartz diorite		Rb-Sr	H-74-18B		38
120	biotite	quartz diorite	northern Chile	Rb-Sr	3	FF	37
120	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-3	FF	37
118	biotite	quartz diorite	northern Chile	Rb-Sr	H-73-1	FF	37
109	whole rock	adamellite		Rb-Sr	H-74-4B	FF	38
109	whole rock	granodiorite		Rb-Sr	H-74-12	FF	38
107	whole rock	adamellite		Rb-Sr	H-74-4A	FF	38
107	whole rock	rhyolite tuff		Rb-Sr	H-74-8		38
107	whole rock	granodiorite		Rb-Sr	H-74-10	FF	38
106±9	whole rock	adamellite		Rb-Sr	(4 samples)		38
100±6	whole rock	adamellite	Simpson River 45°29'S, 72°15'W	Rb-Sr	(5 samples)		38
73	biotite	quartz diorite		Rb-Sr	H-74-21A		38
71	biotite	quartz diorite		Rb-Sr	H-74-21B		38
70(?)	whole rock	granodiorite		Rb-Sr	H-74-22	FF	38
46	whole rock(?)	quartz latite(?)	northern Chile	Rb-Sr	6B	FF	37
43	whole rock(?)	quartz latite(?)	northern Chile	Rb-Sr	6C	FF	37
41	whole rock(?)	quartz latite(?)	northern Chile	Rb-Sr	6A	FF	37
41	whole rock(?)	igneous rocks	northern Chile	Rb-Sr	H-73-42	FF	37
22.8±1.0	biotite	ignimbrite	19°53.3'S, 69°23.3'W	K-Ar	A115	G	5
21.0±1.1	biotite	ignimbrite	19°53.3'S, 69°23.3'W	K-Ar	A114	G	5
17.1±0.8	biotite	ignimbrite	20°42.3'S, 68°55.8'W	K-Ar	A161	G	5
15.2±0.8	whole rock	andesite	21°44'S, 68°31.5'W	K-Ar	A168-1	G	5
15	biotite	quartz diorite		Rb-Sr	H-74-14A		38
15	biotite	quartz diorite		Rb-Sr	H-74-25		38
13	biotite	quartz diorite		Rb-Sr	H-74-7		38
13	biotite	quartz diorite		Rb-Sr	H-74-14B		38
12.9±0.6	whole rock	andesite	19°51.8'S, 69°01.8'W	K-Ar	A112	G	5
12	biotite	quartz diorite		Rb-Sr	H-74-6		38
9.0±0.4	biotite	andesite	21°02'S, 68°29'W	K-Ar	A129	G	5
8.9±0.5	biotite	Upper San Pedro Ignimbrite	21°56.5'S, 68°32.5'W	K-Ar	A6-6	G	5

CHILE (continued)

8.5±1.4	biotite	Upper San Pedro Ignimbrite	21°49.8'S, 68°36.8'W	K-Ar	A40-2	G	5
8.4±0.4	biotite	Upper San Pedro Ignimbrite	21°46.8'S, 68°37.8'W	K-Ar	A41	G	5
8.3±0.4	biotite	andesite	21°01'S, 68°30.5'W	K-Ar	A118	G	5
8.2±1.2	biotite	Upper San Pedro Ignimbrite	21°49.8'S, 68°36.8'W	K-Ar	A40-2	G	5
7.2±0.4	biotite	andesite	20°48.8'S, 68°35.5'W	K-Ar	A157	G	5
7.0±0.4	biotite	ignimbrite	20°51'S, 68°53.8'W	K-Ar	A132	G	5
4.8±0.2	whole rock	andesite	20°50.5'S, 68°34.8'W	K-Ar	A156	G	5
3.6±0.3	biotite	ignimbrite	20°39.8'S, 68°42.8'W	K-Ar	A154	G	5
3.4±0.4	whole rock	andesite	20°50.5'S, 68°37.5'W	K-Ar	A125	G	5
3.2±0.3	biotite	andesite	21°06.3'S, 68°29.3'W	K-Ar	A128	G	5
1.1±0.1	whole rock	andesites	22°15.3'S, 68°09.3'W	K-Ar	A88-15	G	5
1.1±0.1	whole rock	andesites	22°15.3'S, 68°09.3'W	K-Ar	A88-15	G	5
0.63±0.9	biotite	rhyolite	19°59.5'S, 68°46.3'W	K-Ar	A143	G	5

GREENLAND

3620±72		Uivak gneiss	West Greenland (or Labrador?)	Rb-Sr			43
3000	zircons	gneiss	Sagdliata nunatuk	U-Pb	GGU-149200	Q	70
2795±11	zircons	enstatite-gedrite	Fiskenaesset Harbour	U-Pb	GGU-94809	Q	70
2790	zircons	mafic pod in anorthosite	Qeqertarssuatsiaq Island	U-Pb	GGU-132088	Q	70
2660±20	zircons	granite dike	Ravns Storø belt	U-Pb	GGU-12211/1	Q	70
2580±65	whole rock	Qorqut granite	Godthaab area, West Greenland	Pb-Pb			59
2498±16	whole rock	Qorqut granite	Godthaab area, West Greenland	Rb-Sr			59
1950±60	whole rock	Kangamiut dikes	West Greenland	Rb-Sr	(13 samples)	C	45
1930±70	whole rock	Kangamiut dike	West Greenland	Rb-Sr	(5 samples)	C	45
1930±70	whole rock	Kangamiut dike	West Greenland	Rb-Sr	(9 samples)	C	45
1327±17	whole rock	Gronnedal-Ika Complex	Gardar Province	Rb-Sr	(11 samples)	Q	10
1310±31	whole rock	Motzfeldt unit	Gardar Province	Rb-Sr	(12 samples)	Q	10
1295±61	whole rock	North Qoroq unit	Gardar Province	Rb-Sr	(10 samples)	Q	10
1254±129	whole rock	Gardar dolerite	61°15'N, 48°15'W Tugtutoq	Rb-Sr	186506	Q	67
1251±18	biotite	Ivigtut dolerite	61°15'N, 48°30'W Ivigtut Peninsula	Rb-Sr	161003	Q	67
1250±18	biotite	Ivigtut dolerite	61°15'N, 48°30'W Ivigtut Peninsula	Rb-Sr	161003	Q	67
1249±29	biotite	Arsuk lamprophyre	61°15'N, 48°30'N Kungnat	Rb-Sr	86192	Q	67
1245±18	biotite	Ivigtut dolerite	61°15'N, 48°15'W Ivigtut Peninsula	Rb-Sr	161002	Q	67
1238±18	biotite	Ivigtut dolerite	61°15'N, 48°15'W Ivigtut Peninsula	Rb-Sr	161001	Q	67
1236±18	biotite	Ivigtut dolerite	61°15'N, 48°15'W Ivigtut Peninsula	Rb-Sr	161001	Q	67
1228±29	biotite	Arsuk lamprophyre	61°15'N, 48°30'W Kungnat	Rb-Sr	81119	Q	67
1219±18	biotite	Gardar dolerite	61°15'N, 48°15'W Tugtutoq	Rb-Sr	186506	Q	67
1212±18	biotite	Gardar dolerite	60°45'N, 46°W Julianehåb	Rb-Sr	186564	Q	67
1203±91	whole rock	Gardar dolerite	60°45'N, 46°W Julianehåb	Rb-Sr	186564	Q	67
1185±8	whole rock	South Qoroq unit	Gardar Province	Rb-Sr	(11 samples)	Q	10
1178±64	zircon	Amitsoq gneiss	near Godthaab western Greenland	fission track	155704		36

GREENLAND (continued)

1167±15	whole rock	Igdlerfigssalik unit	Gardar Province	Rb-Sr	(8 samples)	Q	10
1162±21	whole rock	Nunarssuit biotite-granite	Gardar Province	Rb-Sr	(7 samples)	Q	10
1154±14	whole rock	Nunarssuit syenite	Gardar Province	Rb-Sr	(5 samples)	Q	10
1149±31	whole rock	Helene granite	Gardar Province	Rb-Sr	(4 samples)	Q	10
1143±48	whole rock	Alangorssuaq gabbro	Gardar Province	Rb-Sr	(4 samples)	Q	10
1112±60	zircon	Amitsoq gneiss	near Godthaab western Greenland	fission track	155711		36
1101±107	sphene	Amitsoq gneiss	near Godthaab western Greenland	fission track	155819		36
1088±114	allanite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155819		36
1066±51	sphene	Amitsoq gneiss	near Godthaab western Greenland	fission track	155715		36
1060±54	zircon	Amitsoq gneiss	near Godthaab western Greenland	fission track	155734		36
990±58	zircon	Amitsoq gneiss	near Godthaab western Greenland	fission track	155720		36
282±16	apatite	Nuk gneiss	near Godthaab western Greenland	fission track	JHA 204331		36
245±11	apatite	Nuk gneiss	near Godthaab western Greenland	fission track	131502		36
156±8	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155758		36
149±8	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155704		36
136±7	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155720		36
123±6	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155720		36
121±6	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155736		36
93±5	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155737		36
85±4	apatite	Amitsoq gneiss	near Godthaab western Greenland	fission track	155715		36
MEXICO							
Chihuahua							
~30	whole rock	volcanics, Sierra Madre Occidental	Cuauhte'moc	K-Ar	(3 samples)		56
Durango							
~30	sanidine	volcanics, eastern Sierra Madre Occidental	Durango	K-Ar	(2 samples)		56
23.3	plagioclase sanidine	volcanics, western Sierra Madre Occidental	El Salto	K-Ar	(6 samples)		56
Sonora							
58±3.1	biotite	Los Cerritos gneiss		K-Ar			31
57±3.3	biotite	Los Cerritos gneiss		K-Ar			31
0.75±0.02	whole rock	trachyte flow	crest Sierra del Pinacate 31°46.3'N, 113°29.8'W	K-Ar		T	54
PERU							
131±5	whole rock	comendite	13°00.4'S, 74°06'W	K-Ar	AYA-PAN	I	63
SURINAME							
2760	whole rock	charnockite and enderbite	Bakhuys Mountains, western Suriname	Rb-Sr	(28 samples)		71
2026±20	zircon	enderbite	Bakhuys Mountains, western Suriname	U-Pb	SUR 408		71

UNITED STATES

Alaska

57.2±2.3	chlorite	granite	St. George Island	K-Ar	G200	HH	42
55.0±2.2	alkali feldspar	granite	St. George Island	K-Ar	G199	HH	42
52.7±2.1	K-feldspar	granite	St. George Island	K-Ar	G200	HH	42
49.5±2.0	sericite	granite	St. George Island	K-Ar	G199	HH	42
42.3±4.6	whole rock	basalt	Ulak 51°23'N, 178°59.8'W	K-Ar	A-U22	E	26
33.1±1.1	whole rock	metadiorite	Ulak 51°23.4'N, 178°59'W	K-Ar	A-U23	GG	26
29.0±2.0	whole rock	diabase	Amatignak 51°14.7'N, 179°07.6'W	K-Ar	A-A20	E	26
29.0±4.4	whole rock	basalt	Kiska 51°55'N, 178°22.1'W	K-Ar	A-K14	E	26
23.7±0.8	whole rock	basalt	Amatignak 51°17.8'N, 179°07.2'W	K-Ar	A-A31	GG	26
6.5±0.1	glass	ash 78–79 cm	50°45'N, 140°30.5'W	Ar-Ar	DSDP-18-178-44-4	O	41
4.9±0.1	glass	ash 107–109 cm	50°45'N, 140°30.5'W	Ar-Ar	DSDP-18-178-34-6	O	41
3.1±0.1	glass	ash 135–137 cm	50°45'N, 140°30.5'W	Ar-Ar	DSDP-18 178-28-2	O	41
1.70±0.15	glass	Lost Chicken tephra	Lost Chicken Mine, east-central Alaska	K-Ar	UA 771	K	12
0.45±0.07	glass	Ester Ash bed	near Fairbanks	K-Ar	UA 743	K	12

Arizona

1540	whole rock	quartz diorite gneiss 3,101–3,102 m	S2,T8S,R8E	Rb-Sr			31
1275	whole rock	quartz diorite gneiss 3,101–3,102 m	S2,T8S,R8E	Rb-Sr			31
1080	whole rock	gneissic granite 771–777 m	S25,T3S,R11W	Rb-Sr			31
984±39	biotite	gneissic granite	33°03.2'N, 112°42.8'W	K-Ar			31
319±15.7	biotite	gneiss	32°39.8'N, 114°19.0'W	K-Ar			31
198±9.4	biotite	gneiss	32°39.6'N, 114°19.3'W	K-Ar			31
163.7±4.0	whole rock	gneissic granite 771–777 m	S25,T3S,R11W	K-Ar	Exxon (14)-1 VAKA-72-57		31
160±8.0	biotite	welded tuff	33°07.5'N, 111°39.2'W	K-Ar			31
120±60	whole rock	quartz monzonite 3,753 m	S5,T16S,R15E	Rb-Sr			31
78±4.3	biotite	tuff	32°42.7'N, 114°11.6'W	K-Ar			31
72±13.2	biotite	basalt 1,050–1,062 m	S34,T1N,R4W	K-Ar	Reeves No. 1 Fuqua well		31
70.1±2.1	biotite	quartz latite	32°17.7'N, 111°36.3'W	K-Ar	VHSE-7N	HH	6
69	biotite	granodiorite	33°44.8'N, 113°40.5'W	K-Ar			31
61	whole rock	quartz monzonite 3,753 m	S5,T16S,R15E	K-Ar	Exxon (32)-1 VAKA-72-78		31
59.8±6.5	sphene	quartz monzonite	32°23.9'N, 111°31.8'W	fission track	UHNE-168N	HH	6
59±3.2	biotite	granitic gneiss	32°40.3'N, 114°35.9'W	K-Ar			31
54.0±5.1	zircon	quartz monzonite	32°24.6'N, 110°33.0'W	fission track	UHNE-169N	HH	6
51±3.3	biotite	basalt 586-610 m	S27,T4N,R1E	K-Ar			31
50.6±3.2	zircon	quartz monzonite	32°23.9'N, 111°31.8'W	fission track	UHNE-168N	HH	6
48±2.8	biotite	Crystal tuff	34°11.5'N, 113°41.3'W	K-Ar			31
44±5	biotite	basaltic andesite 466–472 m	S19,T4N,R3E	K-Ar	Sperry Gyroscope No. 1 well		31

UNITED STATES
Arizona (continued)

38±2.0	biotite	granitic gneiss	32°40.3'N, 114°35.9'W	K-Ar			31
29.3±3.1	whole rock	basalt	33°07'N, 113°33.9'W	K-Ar	VAKA-72-47		31
29±2.4	whole rock	welded tuff	S27,T11S,R10E	K-Ar	Berry No. 1 Federal 1 well		31
28.2±0.8	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	751307	HH	18
28±4.2	biotite	basaltic andesite	33°16.7'N, 113°29.7'W	K-Ar			31
27.4±0.8	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	751310	HH	18
27±3.8	whole rock	welded rhyolite tuff Sil Murk Formation	33°04.9'N, 112°47.8'W	K-Ar			31
26.7±0.8	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	751316	HH	18
26.5±0.8	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	751314	HH	18
26.5±0.8	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	KA154	HH	18
25.7±0.8	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	KA418	HH	18
25.6±0.8	sanidine	Galiuro Volcanics	Galiuro Mountains	K-Ar	651095	HH	18
25.2±1.0	plagioclase	rhyodacite	32°33'N, 111°40.3'W	K-Ar	E-2N	HH	6
25±2.7	whole rock	basalt, Ajo Volcanics	32°19.6'N, 112°52.2'W	K-Ar			31
25±1.7	whole rock	welded rhyolitic tuff	33°15.1'N, 114°37.6'W	K-Ar			31
25±1.4	biotite	quartz diorite gneiss 3,101–3,102 m	S2,T8S,R8E	K-Ar	Exxon (74)-I		31
24.7±3.5	whole rock	basalt (Trout Creek)	35°01.2'N, 113°28.6'W	K-Ar			96
24.6±0.7	biotite	Galiuro Volcanics	Galiuro Mountains	K-Ar	651096	HH	18
24±1.6	biotite	welded rhyolite tuff	33°49.9'N, 114°05.6'W	K-Ar			31
23.4±0.6	whole rock	andesitic basalt 2,420–2,426 m	S5,T16S,R15E	K-Ar	Exxon (32)-1 VAKA-72-66		31
23±5.2	whole rock	basalt (Antelope Peak)	32°47.9'N, 112°10.5'W	K-Ar			31
23±7.7	whole rock	basalt 288–325 m	S27,T4N,R1E	K-Ar	Isabel No. 1 well		31
23±2.7	whole rock	rhyolitic tuff	32°47.3'N, 114°06.3'W	K-Ar			31
23±1.6	biotite	rhyolitic tuff	33°16.4'N, 113°26.9'W	K-Ar			31
22.9±0.7	sanidine	Galiuro Volcanics	Galiuro Mountains	K-Ar	KA427	HH	18
22.5±0.7	sanidine	Galiuro Volcanics	Galiuro Mountains	K-Ar	651094	HH	18
22.2±1.1	plagioclase	trachyandesite	32°16.7'N, 111°42.1'W	K-Ar	VHSW-3N	HH	6
22±1.9	biotite	basalt 222–271 m	S19,T4N,R3E	K-Ar	Sperry Gyroscope No. 1 well		31
22±1.2	whole rock	basaltic andesite 1,430–1,442 m	S8,T4N,R4E	K-Ar	Biery No. 1 Federal well		31
22	whole rock	basalt	S20,T14N,R11W	K-Ar			31
21.8±4.3	apatite	quartz monzonite	32°23.9'N, 111°31.8'W	fission track	VHNE-168N	HH	6
21.3±0.9	whole rock	aphanitic volcanics	S25,T3S,R11W	K-Ar	Exxon (14)-1 VAKA-72-58		31
21±3.6	whole rock	basalt (Artillery Formation)	34°19.9'N, 113°35.6'W	K-Ar			31
21±1.2	biotite	andesite	33°56.6'N, 113°55.5'W	K-Ar			31
21±1.2	whole rock	basalt	32°33.1'N, 112°52.7'W	K-Ar			31
20.5±1.0	whole rock	andesite 299–238 m	S25,T3S,R11W	K-Ar	Exxon (14)-1 VAKA-72-54		31
20±10	whole rock	andesitic basalt 3,078–3,108 m	S8,T11S,R24W	K-Ar	Exxon Yuma Federal 1 well		31
20±3.1	whole rock	basalt	34°07.3'N, 114°13.1'W	K-Ar			31
20±2.6	whole rock	basalt 380–382 m	S23,T3N,R2E	K-Ar	Jacobs Probe No. 2 well		31
20±1.3	whole rock	basalt	33°58.2'N, 112°24.6'W	K-Ar			31
19.5±0.8	whole rock	trachyandesite	32°16.7'N, 111°42.1'W	K-Ar	VHSW-3N	HH	6

UNITED STATES
Arizona (continued)

19.2±2.8	apatite	quartz monzonite	32°24.6'N, 110°33.0'W	fission track	VHNE-169N	HH	6
18.5±1.5	whole rock	leucocratic rhyolite	33°08.2'N, 113°23.9'W	K-Ar	VAKA-72-48		31
18.2±1.5	whole rock	basalt (Austin Peak)	35°04.7'N, 113°29.9'W	K-Ar			96
18.0±2.0	whole rock	andesitic basalt 2,972–3,002 m	S5,T16S,R15E	K-Ar	Exxon (32)-1 VAKA-72-70		31
18±7.2	whole rock	basalt	33°01.1'N, 112°60'W	K-Ar			31
17±1.0	whole rock	basalt 2,792–2,807	S2,T8S,R8E	K-Ar	Exxon (74)-1		31
16.1±0.6	whole rock	andesitic basalt 2,895–2,898 m	S5,T16S,R15E	K-Ar	Exxon (32)-1 VAKA-72-70		31
16±31.9	whole rock	andesitic tuff 2,194–2,224 m	S8,T11S,R24W	K-Ar	Exxon Yuma Federal 1 well		31
15±2.2	whole rock	basalt Batamote Andesite	32°18.3'N, 113°00.4'W	K-Ar			31
15±2.1	whole rock	basalt (Hickey Formation?)	34°04.3'N, 112°06.5'W	K-Ar			31
13±2.1	whole rock	Cobwebb Basalt	34°19.3'N, 113°36.2'W	K-Ar			31
10.5±4.5	whole rock	basalt 469–487 m	S14,T2N,R1W	K-Ar	Goodyear Farms well		31
9±1.8	whole rock	basalt	33°03.5'N, 114°49.9'W	K-Ar			31
6±1.8	whole rock	basalt	33°13.8'N, 112°46.5'W	K-Ar			31
5.88±0.18	whole rock	basalt	36°02.8'N, 114°39.6'W	K-Ar		T	24
3.80±0.11	whole rock	basalt	36°12.3'N, 114°01.0'W	K-Ar		T	24
3.79±0.46	whole rock	basalt	36°06.5'N, 114°06.4'W	K-Ar		T	24
3.0±0.9	whole rock	basalt	32°56.1'N, 113°18.1'W	K-Ar			31
California							
1830		basement rocks	southern Sierra Nevada	Pb-Pb		Y	16
250–300		mafic gabbro	Kings and Kaweah Rivers S.W. Sierra Nevada foothills	Pb-Sr			77
221±4		Bedford Canyon Formation	southern California	Rb-Sr		A	19
208±7	whole rock	Lowe Granodiorite	San Gabriel Mountains	Rb-Sr		A	44
175±3		Bedford Canyon Formation	southern California	Rb-Sr		A	19
174±5	zircon	monzonite	Joshua Flat	U-Pb	J1C	X	86
169		gabbro diorite	Kings and Kaweah Rivers S.W. Sierra Nevada foothills	Pb-Sr			77
163.3±14		Santa Monica Slates	southern California	Rb-Sr		A	19
153±4.5	whole rock	metagraywacke Galice Formation	40°34.1'N, 123°28.6'W	K-Ar	I-8-74	HH	48
151±4.4	whole rock	metagraywacke Galice Formation	40°34.0'N, 123°28.6'W	K-Ar	I-9-74	HH	48
148±1.8	whole rock	metagraywacke Galice Formation	40°33.7'N, 123°29.1'W	K-Ar	I-11-74	HH	48
130±7.2	whole rock	Chinquapin Metabasalt Member, South Fork Mountain Schist	40°10.5'N, 122°54.7'W	K-Ar	62YB-90	HH	48
129±3.8	whole rock	metagraywacké South Fork Mountain Schist	40°16.1'N, 123°16.5'W	K-Ar	P-1042	HH	48
128.5±3.2	biotite	quartz diorite Rocklin pluton	near Folsom	K-Ar		W	85
128.3±3.2	hornblende	quartz diorite Rocklin pluton	near Folsom	K-Ar		W	85
122±1.8	whole rock	metagraywacke South Fork Mountain Schist	40°14.6'N, 123°07.4'W	K-Ar	63BR-11	HH	48

UNITED STATES
California (continued)

121±2.5	whole rock	metagraywacke South Fork Mountain Schist	40°22.5'N, 123°24.6'W	K-Ar	P-1016	HH	48
121±1.5	whole rock	metagraywacke South Fork Mountain Schist	40°10.5'N, 122°58.8'W	K-Ar	64YB-13	HH	48
120±3.6	whole rock	metagraywacke South Fork Mountain Schist	41°11.2'N, 123°42.2'W	K-Ar	65CLe-34A	HH	48
120±2.0	whole rock	metagraywacke South Fork Mountain Schist	40°10.3'N, 122°53.9'W	K-Ar	63YB-84	HH	48
120±1.8	whole rock	Chinquapin Metabasalt Member, South Fork Mountain Schist	40°12.2'N, 122°59.8'W	K-Ar	63YB-109	HH	48
120±1.8	whole rock	metagraywacke South Fork Mountain Schist	40°09.2'N, 122°52.2'W	K-Ar	70CLe-21	HH	48
119±7.9	whole rock	metagraywacke South Fork Mountain Schist	40°11.6'N, 122°54.8'W	K-Ar	64YB-9	HH	48
116±2.7	whole rock	metagraywacke South Fork Mountain Schist	40°09.3'N, 122°52.1'W	K-Ar	70CLe-22	HH	48
115—125		olivine-hornblende gabbro	Kings and Kaweah Rivers S.W. Sierra Nevada foothills	Pb-Sr			77
114±2.4	whole rock	Chinquapin Metabasalt Member, South Fork Mountain Schist	40°09.0'N, 122°52.2'W	K-Ar	70YB-3A	HH	48
114±1.9	whole rock	metagraywacke Franciscan Formation	40°06.6'N, 122°59.8'W	K-Ar	63YB-65	HH	48
114±1.8	whole rock	metagraywacke Franciscan Formation	40°07.1'N, 122°58.0'W	K-Ar	62YB-31B	HH	48
112±1.6	whole rock	metagraywacke Franciscan Formation	40°09.0'N, 122°59.1'W	K-Ar	62YB-29	HH	48
112±1.4	whole rock	metagraywacke South Fork Mountain Schist	40°09.1'N, 122°52.2'W	K-Ar	70CLe-20	HH	48
106±3.1	whole rock	metagraywacke Franciscan Formation	40°21.1'N, 123°24.5'W	K-Ar	P-48	HH	48
103±3.1	whole rock	metagraywacke Franciscan Formation	40°21.1'N, 123°24.5'W	K-Ar	P-48	HH	48
100±3.0	whole rock	metagraywacke Franciscan Formation	40°22.7'N, 123°25.4'W	K-Ar	P-1013C	HH	48
99.2±3.2	whole rock	rhyolite	Diablo Range	K-Ar		V	75
85	K-feldspar	Mt. Whitney pluton	southern Sierra Nevada	Pb-Sr		Y	16
65±12	whole rock	Lowe Granodiorite	San Gabriel Mountains	Rb-Sr		A	44
63 (average)	apatite, zircon, and sphene	mylonite	northern Santa Rosa Mountains	fission track		EE	28
31.8±3.2	plagioclase	dacite	Picacho area 32°58.5'N, 114°37.1'W	K-Ar	5-86		20
30.2±1	phlogopite	Coyote Peak diatreme	Coyote Peak	K-Ar	76CYP1	HH	21
29.4±0.5	bartonite	Coyote Peak diatreme	Coyote Peak	Ar-Ar	77CYP15	HH	21
28.3±0.4	phlogopite	Coyote Peak diatreme	Coyote Peak	Ar-Ar	77CYP9	HH	21
26.5±0.5	rasvumite	Coyote Peak diatreme	Coyote Peak	Ar-Ar	77CYP9	HH	21
22.7±5.9	plagioclase	rhyodacite	Picacho area 33°01.2'N, 114°38.0'W	K-Ar	3-26		20
16±1.0	whole rock	Alverson Volcanics	Imperial County 32°47.9'N, 116°01.6'W	K-Ar			31
13.1±2.5	plagioclase	basalt	Picacho area 33°05.2'N, 114°50.8'W	K-Ar	PP-100		20

UNITED STATES
California (continued)

5.47±0.20	glass	vitric tuff	33°06.5'N, 114°52.8'W	K-Ar		T	24
2–0.01		Clear Lake Volcanics	Clear Lake area	K-Ar		HH	29
1.15±0.02	sanidine	Alder Creek rhyolite	Cobb Mountain	K-Ar	KA2976	V	55
1.11±0.02	sanidine	Alder Creek rhyolite	Cobb Mountain	K-Ar	KA3154	V	55
1.11±0.02	sanidine	Alder Creek rhyolite	Cobb Mountain	K-Ar	KA1838	V	55
1.10±0.02	whole rock	Cobb Valley dacite	Cobb Mountain	K-Ar	KA3153	V	55
1.08±0.03	whole rock	Cobb Valley dacite	Cobb Mountain	K-Ar	KA3153	V	55
1.06±0.03	whole rock	Cobb Valley dacite	Cobb Mountain	K-Ar	KA3153	V	55
1.06±0.02	sanidine	Cobb Mountain dacite	Cobb Mountain	K-Ar	KA2868	V	55
1.05±0.02	sanidine	Cobb Mountain dacite	Cobb Mountain	K-Ar	KA2868	V	55
.087±.020	whole rock	Long Valley rhyolite	Mammoth Lakes	U-Th	76A003		7
.127±.016	whole rock	Long Valley rhyolite	Mammoth Lakes	U-Th	76A004		7
Colorado							
1660±60	whole rock	granite	Rosalie Peak	Rb-Sr			14
29.1±1.2	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	8-24-72		62
28.0±0.7	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	12-27-76		62
27.5±0.8	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	8-15-75		62
27.1±0.7	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	11-25-75		62
27.1±0.6	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	6-07-74		62
26.7±0.6	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	8-04-75		62
26.2±0.6	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	1-16-78		62
25.9±1.0	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	6-02-72		62
25.5±1.0	zircon	Fish Canyon Tuff	San Juan Mountains	fission track	5-24-72		62
5–34.7		San Juan volcanic field	San Juan area	U-Th-Pb and Rb-Sr		GG	50

(numerous ages, may be approximations only — see original for details)

Delaware

502±20	whole rock	Arden pluton Wilmington Complex	Wilmington	Rb-Sr	(12 samples)	DD(?)	33

Georgia

1269	whole rock	dike	Gwinnett County	K-Ar	RDV4-1AC		30
460		felsic volcanic rocks	coastal plain				17
391	whole rock	dike	Gwinnett County	K-Ar	RD14-3AC		30
355±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	3	M	23
353	whole rock	dike	Gwinnett County	K-Ar	RDV14-4AC		30
351±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	2	M	23
334	whole rock	dike	Gwinnett County	K-Ar	RD14-2AC		30
330	whole rock and K-feldspar	calc-alkaline granite plutons	(Maryland to Georgia)	Pb-Pb	(~30 samples)		81
326±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	4	M	23
323±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	5	M	23
321±7	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	K-Ar	4	M	23
320±8	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	K-Ar	6	M	23
318±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	6	M	23

UNITED STATES
Georgia (continued)

317±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	2	M	23
311±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	3	M	23
310±5	biotite	Gerogia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	1	M	23
309±7	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	K-Ar	9	M	23
308±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	9	M	23
307±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	8	M	23
301±7	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	K-Ar	5	M	23
300±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	7	M	23
300±5	hornblende	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	11	M	23
299±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	5	M	23
297	whole rock	dike	Gwinnett County	K-Ar	RDV1-6AC		30
297	whole rock	dike	Gwinnett County	K-Ar	RDV1-3AC		30
296±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	4	M	23
290±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	8	M	23
288	whole rock	dike	Gwinnett County	K-Ar	RDV1-5AC		30
284±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	9	M	23
283±5	muscovite	Stone Mountain Granite	Georgia Inner Piedmont			M	23
281±5	biotite	Stone Mountain Granite	Georgia Inner Piedmont			M	23
268	whole rock	dike	Gwinnett County	K-Ar	RDV1-4AC		30
266±6	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	K-Ar	10	M	23
261±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	10	M	23
254±7	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	K-Ar	12	M	23
250±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	12	M	23
244±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	13	M	23
242	whole rock	dike	Gwinnett County	K-Ar	RDV14-1AC		30
236±5	biotite	Georgia Inner Piedmont	Georgia Inner Piedmont	Ar-Ar	14	M	23
204	whole rock	dike	Gwinnett County	K-Ar	RDV1-2AC		30
180		diabases	coastal plain				17
150	whole rock	dike	Gwinnett County	K-Ar	RDV1-1AC		30
Idaho							
85.9		quartz monzonite porphyry stock	44°19'N, 114°32'W Thompson Creek	K-Ar			2
83		White Cloud quartz monzonite stock	44°02'N, 114°33'W White Cloud	K-Ar			2
61.5±2.2	whole rock	porphyry molybdenum	44°02'N, 114°33'W White Cloud	K-Ar	White Cloud	U	2
8.2±1.4	glass	volcanic ash, lower Chalk Hills Formation	Snake River Plain	fission track	(4 samples)		46
7.7	glass	Peters Gulch volcanic ash	Hagerman Cliffs Twin Falls Co.	fission track			46
6.5±0.5	glass	volcanic ash, upper Chalk Hills Formation	Snake River Plain	fission track	(6 samples)		46
3.8	glass	volcanic ash, Glenns Ferry Formation	Snake River Plain	fission track	(1 sample)		46
3.6	glass	volcanic ash, lower Chalk Hills Formation	Snake River Plain	fission track	(4 samples)		46
2.6	glass	volcanic ash, Glenns Ferry Formation	Snake River Plain	fission track	(1 sample)		46
Maine							
407	biotite	granite	Cashes Ledge Gulf of Maine		429-1-1-A NM and 429-1-1-A M	B	40
367	whole rock	granite	Cashes Ledge Gulf of Maine		431-1-1	B	40

UNITED STATES

Maine (continued)

306	biotite	granite	Cashes Ledge Gulf of Maine		445-1-1 NM and 445-1-1	B	40
200±9	whole rock	olivine diabase	43°51.1'N, 70°23.0'W	K-Ar	10	E	57
184±8	whole rock	olivine diabase	45°05.1'N, 70°12.5'W	K-Ar	9	E	57
158±6	whole rock	augite camptonite	43°54.1'N, 70°42.6'W	K-Ar	11	E	57
124±6	whole rock	augite camptonite	43°22.1'N, 70°33.4'W	K-Ar	12	E	57
121±5	whole rock	augite camptonite	45°19.7'N, 70°38.8'W	K-Ar	8	E	57

Michigan

<3400	zircon	tonalitic gneiss	Watersmeet	U-Pb			69
2750	zircon	granite	Marenisco and Watersmeet	U-Pb			80
2750	zircon	tonalite phase of granite/gneiss unit	near Thayer				69
2600		leucogranite dike	Watersmeet	U-Pb			69
1755	zircon	cataclastic phase of tonalitic gneiss	Watersmeet	U-Pb			69
1750	whole rock and mineral separates	tonalitic gneiss	Watersmeet	Rb-Sr			69
1750	whole rock	granite	Marenisco and Watersmeet	Rb-Sr			80

Montana

2701±0.015		norite from Stillwater Complex	southwest Montana	Sm-Nd	(multiple samples)		27
1160	whole rock	diabase dike	Tobacco Root Mountains	Rb-Sr	(2 samples)	CC	95
1130–1160	whole rock	diabase dike	Tobacco Root Mountains	Rb-Sr	(14 samples)	CC	95
1130±130	whole rock	diabase dike	Tobacco Root Mountains	Rb-Sr	(4 samples)	CC	95
1130	whole rock	diabase dike	Tobacco Root Mountains	Rb-Sr	(3 samples)	CC	95
1120±185	whole rock	diabase dike	Tobacco Root Mountains	Rb-Sr	(6 samples)	CC	95
1060±50	whole rock	diabase dike	Ruby Range and Tobacco Root Mountains	Rb-Sr	(6 samples)	CC	95
59.1	muscovite	porphyry molybdenum mineralization	45°38'N, 113°55'W Cannivan Gulch	K-Ar	Cannivan	U	2

Nevada

176±5	hornblende	granodiorite	Edna Mountains area	K-Ar	G 127A		32
164±5	hornblende	syenite	Edna Mountains area	K-Ar	MB-3		32
161±5	biotite	syenite	Edna Mountains area	K-Ar	MB-3		32
157±5	biotite	porphyritic syenite	Edna Mountains area	K-Ar	MB-4		32
155±6	biotite	porphyritic syenite	Edna Mountains area	K-Ar	GC 519		32
154±5	biotite	quartz monzonite	Edna Mountains area	K-Ar	MB 27		32
153±6	biotite	porphyritic syenite	Edna Mountains area	K-Ar	GC 517A		32
151±6	biotite	quartz monzonite	Edna Mountains area	K-Ar	BS 740		32
149±4	biotite	quartz monzonite	Edna Mountains area	K-Ar	MB-1		32
148±4	hornblende	quartz monzonite	Edna Mountains area	K-Ar	MB-1		32
146±6	hornblende	quartz monzonite	Edna Mountains area	K-Ar	GC 521		32
106±3	biotite	granodiorite	Edna Mountains area	K-Ar	GC 213		32
106±3	hornblende	granodiorite	Edna Mountains area	K-Ar	GC 213		32
105±3	muscovite	schist (Preble Formation)	Edna Mountains area	K-Ar	G 52		32
104±3	muscovite	granodiorite	Edna Mountains area	K-Ar	G 41		32
102±3	syenite	clinoamphibole	Edna Mountains area	K-Ar	GC 412		32
101±3	biotite	granodiorite	Edna Mountains area	K-Ar	IP 24		32
92.7±2.8	hornblende	hornfels (Pumpernickle Formation)	Edna Mountains area	K-Ar	GC 9		32

UNITED STATES
Nevada (continued)

88.0±2.6	biotite	quartz monzonite	Edna Mountains area	K-Ar	BS 742		32
86.2±2.6	whole rock	greenstone (Pumpernickle Formation)	Edna Mountains area	K-Ar	GC 212A		32
73.6±2.9	sericite	granodiorite	Edna Mountains area	K-Ar	Silver Coin		32
72.5±2.2	biotite	granodiorite	Edna Mountains area	K-Ar	G (GC 10)		32
42.9±1.3	biotite	granodiorite	Edna Mountains area	K-Ar	IP New		32
25.9±0.8	sanidine	rhyolite ash-flow tuff	Edna Mountains area	K-Ar	GC 479		32
25.2±0.8	sanidine	rhyolite ash-flow tuff	Edna Mountains area	K-Ar	GC 501		32
24.2±0.7	sanidine	rhyolite ash-flow tuff	Edna Mountains area	K-Ar	GC 331		32
23.8±0.7	hornblende	andesite tuff	Edna Mountains area	K-Ar	G 1003		32
22.8±0.7	whole rock	basaltic andesite	Edna Mountains area	K-Ar	G 1004		32
15.1±0.5	jarosite	siliceous jarosite	Edna Mountains area	K-Ar	Silver Coin		32
14.6±0.4	biotite	rhyolite vitrophyre	Edna Mountains area	K-Ar	GC 492		32
14.6±0.4	biotite	rhyolite vitrophyre	Edna Mountains area	K-Ar	GC 15		32
14.3±0.4	sanidine	rhyolite vitrophyre	Edna Mountains area	K-Ar	GC 15		32
8	whole rock	basalt Muddy Creek Formation	Clark County 36°24.9'N, 114°24.4'W	K-Ar			31
4.98±0.15	whole rock	olivine basalt	Edna Mountains area	K-Ar	G 294		32
~.400	whole rock	caliche rind, caliche-cemented colluvium	near Lathrop Wells	U-Th	60-B (soluble)		87
.345±.180	whole rock	caliche rind on colluvium	near Lathrop Wells	U-Th	60-A (soluble)		87
.345±.07	whole rock	caliche rind on colluvium	near Lathrop Wells	U-Th	60-A (insoluble)		87
.128±.02	whole rock	caliche, pediment gravel	near Skyline Ridge	U-Th	HOY-1 (soluble)		87
.024±.003	whole rock	caliche filling, fault	near Oak Spring	U-Th	50 (soluble)		87
.008±.002	whole rock	caliche, Cca horizon	near Oak Spring	U-Th	51 (soluble)		87
.004±.002	whole rock	caliche, pediment gravel	near Skyline Ridge	isochron U-Th	HOV-2 (soluble)		87

New Hampshire

180±8	whole rock	diabase	43°48.8'N, 71°40.3'W	K-Ar	6	E	57
96±4	whole rock	augite monchiquite	43°21.9'N, 71°55.1'W	K-Ar	5	E	57

New Mexico

1560±39		Ojita pluton	Manzano Mountains	Rb-Sr			93
1517±239		Magdalena metagabbro	south-central New Mexico	Rb-Sr			93
1367±26		Oscura pluton	south-central New Mexico	Rb-Sr			93
1355±139		Magdalena granitic pluton	south-central New Mexico	Rb-Sr			93
1319±51		Ladron pluton	south-central New Mexico	Rb-Sr			93
1274±63		Magdalena granitic pluton	south-central New Mexico	Rb-Sr			93
1168±57		metavolcanics	south-central New Mexico	Rb-Sr			93
325	clay	Castile and Salado Formations	southeastern New Mexico	Rb-Sr			13
206	salt	Castile and Salado Formations	southeastern New Mexico	Rb-Sr			13
204	whole rock	Castile and Salado Formations	southeastern New Mexico	Rb-Sr			13
149±17	montmorillonite	Westwater Canyon Member Morrison Formation	Section 23 and 35 Mines Ambrosia Lake district Grants mineral belt	Rb-Sr	(10 samples)	BB(?)	49
146±5	montmorillonite	Jackpile Sandstone Morrison Formation	Jackpile Mine Laguna district Grants mineral belt	Rb-Sr	(9 samples)	BB(?)	49
139±13	chlorite	Westwater Canyon Member Morrison Formation	Smith Lake district Grants mineral belt	Rb-Sr	(9 samples)	BB(?)	49

UNITED STATES

New Mexico (continued)

139±10	chlorite	Westwater Canyon Member Morrison Formation	Section 23 and 35 Mines Ambrosia Lake district Grants mineral belt	Rb-Sr	(9 samples)	BB(?)	49
115±9	chlorite	Jackpile Sandstone Morrison Formation	Jackpile Mine Laguna district Grants mineral belt	Rb-Sr	(15 samples)	BB(?)	49
110±10	chlorite	Jackpile Sandstone Morrison Formation	Jackpile Mine Laguna district Grants mineral belt	Rb-Sr	(8 samples)	BB(?)	49
47.1±3.2	hornblende	latite	35°27'N, 106°08'W	K-Ar	3127	GG	4
34.0±2.2	hornblende	latite	35°21'N, 106°11'W	K-Ar	3126	GG	4
26.3±1.1	biotite	andesite	San Acacia	K-Ar	3216	GG	4
25.8±1.0	sanidine	vitrophyre	34°15'N, 106°49'W	K-Ar	3128	GG	4
25.3±0.6	whole rock	andesite	35°38'N, 105°58'W	K-Ar	3067	GG	4
24.9±0.6	whole rock	andesite	35°38'N, 105°58'W	K-Ar	3068	GG	4
24.3±1.5	whole rock	basalt	34°24'N, 106°41'W	K-Ar	3280	GG	4
21.2±0.8	whole rock	basalt	34°42'N, 106°28'W	K-Ar	3069	GG	4
16.3±1.1	whole rock	basalt	34°05'N, 107°23'W	K-Ar	3278	GG	4
9.8±0.4	whole rock	basalt	35°15'N, 106°17'W	K-Ar	3080	GG	4
7.2±0.6	whole rock	basalt	34°44'N, 107°14'W	K-Ar	3281	GG	4
4.5±0.1	whole rock	basalt	34°16'N, 106°58'W	K-Ar	3062	GG	4
4.0±0.3	whole rock	basalt	34°01'N, 106°59'W	K-Ar	3059	GG	4
3.7±0.4	whole rock	basalt	34°43'N, 107°06'W	K-Ar	3276	GG	4
3.5±0.2	whole rock	basalt	34°08'N, 106°30'W	K-Ar	3061	GG	4
3.4±0.4	whole rock	basalt	34°46'N, 106°42'W	K-Ar	3065	GG	4
3.1±0.5	whole rock	basalt	34°26'N, 107°26'W	K-Ar	3296	GG	4
2.9±0.3	whole rock	basalt	33°21'N, 107°11'W	K-Ar	3275	GG	4
2.8±0.2	whole rock	basalt	35°33'N, 107°17'W	K-Ar	3071	GG	4
2.8±0.1	whole rock	basalt	36°30'N, 106°11'W	K-Ar	3058	GG	4
2.6±0.4	whole rock	basalt	35°47'N, 106°14'W	K-Ar	3070	GG	4
2.6±0.3	whole rock	basalt	35°39'N, 106°07'W	K-Ar	3297	GG	4
2.5±0.3	whole rock	basalt	35°23'N, 106°33'W	K-Ar	3294	GG	4
2.5±0.3	whole rock	basalt	35°41'N, 106°18'W	K-Ar	3292	GG	4
2.5±0.2	whole rock	basalt	35°39'N, 106°07'W	K-Ar	3295	GG	4
2.2±0.10	whole rock	basalt	33°40'N, 106°58'W	K-Ar	3060	GG	4
2.1±0.4	whole rock	basalt	33°09'N, 107°06'W	K-Ar	3277	GG	4
1.33±0.02	microcline	Precambrian detritus Morrison Formation	Grants mineral belt	Rb-Sr	(7 samples)	BB(?)	49
1.31±0.05	whole rock	basalt	35°48'N, 106°46'W	K-Ar	2322	GG	4
1.12±0.04	whole rock	basalt	35°47'N, 106°47'W	K-Ar	2323	GG	4
1.01±0.10	whole rock	basalt	35°48'N, 106°48'W	K-Ar	2321	GG	4
0.76±0.1	whole rock	basalt	33°33'N, 106°59'W	K-Ar	3063	GG	4
0.32±0.2	whole rock	basalt	34°54'N, 107°35'W	K-Ar	3064	GG	4
0.19±0.04	whole rock	basalt	37°10'N, 106°45'W	K-Ar	2324	GG	4
New York							
942±70	whole rock	Lowerre Quartzite	Elmsford	Rb-Sr	(5 samples)	H	82
590±40	whole rock	Poughquag Quartzite	Monroe	Rb-Sr	(6 samples)	H	82
555±21	whole rock	Member "C" of Manhattan Schist	southeast New York	Rb-Sr			61
480	whole rock	Poughquag Quartzite	Poughquag	Rb-Sr	(3 samples)	H	82
North Carolina							
402±2	whole rock	Southmont pluton	east of Salisbury	Rb-Sr	(5 samples)	CC	15
396±4	whole rock	Southmont pluton	east of Salisbury	Rb-Sr	(7 samples)	CC	15

UNITED STATES							
North Carolina (continued)							
386±8	whole rock	Yadkin pluton	northeast of Salisbury	Rb-Sr	(6 samples)	CC	15
362±16	whole rock	Kannapolis pluton	southwest of Salisbury	Rb-Sr	(5 samples)	CC	15
Ohio							
2640±400	feldspar	Powell—Union City moraine	Greenville	Rb-Sr			88
1720±100	feldspar	Powell—Union City moraine	Galena	Rb-Sr			88
Texas							
1200±6		pluton	southeast Texas	Rb-Sr		FF	35
1070±20	hornblende	metabasalts	central Texas	K-Ar	(6 samples)	FF	35
1066±6		Enchanted Rock pluton	central Texas	Rb-Sr		FF	35
Utah							
40.0±0.8	augite	monzonite	T4S, R4W Bingham Mine	K-Ar	D1 p	T	91
39.5±0.8	biotite	monzonite	T4S, R4W Bingham Mine	K-Ar	D1 b	T	91
38.0±0.8	biotite	quartz monzonite porphyry	T3S, R4W Bingham Mine	K-Ar	D2 b	T	91
36.9±0.8	hornblende	quartz latite and andesite dike	T4S, R3W near Bingham Mine	K-Ar	D3 h	T	91
20.2±0.86	sanidine	alkalic rhyolites	Staats Mine 38°14.8'N, 113°34.8'W	K-Ar	ST-R	GG	76
11.6±0.46	sanidine	alkalic rhyolite	Dead Horse Reservoir 38°14.4'N, 113°14.4'W	K-Ar	75L-14A	GG	76
10.3±0.40	sanidine	alkalic rhyolite	Thermo Hot Springs 38°10.5'N, 113°09.8'W	K-Ar	75L-13A	GG	76
7.90±0.30	biotite	Corral Canyon dome	Mineral Mountains 38°24'N, 112°53'W	K-Ar	MR76-26	GG	51
7.4±0.40	sanidine	alkalic rhyolite	Blue Ribbon Summit 38°10.2'N, 112°50.4'W	K-Ar	75L-12	GG	76
2.38±0.15	obsidian	Cudahy Mine	Mineral Mountains 38°45'N, 112°51'W	K-Ar	75L-19	GG	51
2.33±0.12	sanidine	South Twin Peak	Mineral Mountains 38°45'N, 112°47'W	K-Ar	75L-21	GG	51
0.85	obsidian	Wildhorse Canyon flow	Mineral Mountains	O-H		GG	51
.80	obsidian	Bailey Ridge flow	Mineral Mountains 38°29'N, 112°49'W	O-H		GG	51
0.79±0.08	obsidian	Bailey Ridge flow	Mineral Mountains 38°29'N, 112°49'W	K-Ar	75L-17	GG	51
0.75±0.10	obsidian	Bearskin Mountain dome	Mineral Mountains 38°27'N, 112°47'W	K-Ar	75L-56	GG	51
0.70±0.04	obsidian	tuff of Ranch Canyon	Mineral Mountains 38°25'N, 112°50'W	K-Ar	75L-15	GG	51
0.61±0.05	sanidine	Little Bearskin Mountain dome	Mineral Mountains 38°27'N, 112°48'W	K-Ar	75R-23	GG	51
0.60±0.12	obsidian	Bearskin Mountain dome	Mineral Mountains 38°27'N, 112°47'W	K-Ar	75L-56	GG	51
0.55±0.30	obsidian	Bailey Ridge flow	Mineral Mountains 38°29'N, 112°49'W	fission track		GG	51
0.54±0.06	sanidine	North Dome	Mineral Mountains 38°31'N, 112°47'W	K-Ar	75L-18A	GG	51
0.50±0.07	sanidine	South Twin Flat Mountain dome	Mineral Mountains 38°25'N, 112°49'W	K-Ar	75L-16	GG	51
0.43±0.07	obsidian	White Mountain	Mineral Mountains 38°55'N, 112°30'W	K-Ar	75L-23	GG	51
0.39±0.02	obsidian	White Mountain	Mineral Mountains 38°55'N, 112°30'W	K-Ar	WM76-3	GG	51
.24	obsidian	Bearskin Mountain dome	Mineral Mountains 38°27'N, 112°47'W	O-H		GG	51

UNITED STATES							
Utah (continued)							
.10(?)	obsidian	South Twin Flat Mountain dome	Mineral Mountains 38°25'N, 112°49'W	O-H		GG	51
<0.02	obsidian	Bearskin Mountain dome	Mineral Mountains 38°27'N, 112°47'W	fission track		GG	51
Vermont							
130±6	hornblende	hornblende monchiquite	44°38.5'N, 72°45.5'W	K-Ar	3	E	57
Washington							
78	zircon	granite pluton	Midnight Mine eastern Washington	U-Th-Pb			53
69±6	apatite	granite pluton	Midnight Mine eastern Washington	fission track			53
51±1	whole rock	phyllites and silicates of Togo Formation	Midnight Mine eastern Washington	U-Pb	(8 samples)		53
18.6	hornblende	Tatoosh pluton	Nisqually Valley 45°51'N, 121°45'W	K-Ar	F-N		9
18.3	hornblende	Tatoosh pluton	Nisqually Valley 45°51'N, 121°45'W	K-Ar	F-N		9
17.9	hornblende	Tatoosh pluton	Nisqually Valley 45°50'N, 121°45'W	K-Ar	F-R		9
17.4	hornblende	Tatoosh pluton	Nisqually Valley 45°50'N, 121°45'W	K-Ar	F-I		9
16.4	biotite	Tatoosh pluton	Nisqually Valley 45°50'N, 121°45'W	K-Ar	F-I		9
16.2	biotite	Tatoosh pluton	Nisqually Valley 45°50'N, 121°45'W	K-Ar	F-R		9
16.1	biotite	Tatoosh pluton	Nisqually Valley 45°50'N, 121°45'W	K-Ar	F-R		9
16.1	biotite	Tatoosh pluton	Nisqually Valley 45°51'N, 121°45'W	K-Ar	F-N		9
Wisconsin							
1885±65	whole rock	granite pluton	northern Wisconsin	Rb-Sr	(8 samples)		68
1655±55	whole rock	(Archean) gneiss	northern Wisconsin	Rb-Sr			68
1615±55	biotite	(Archean) gneiss	northern Wisconsin	K-Ar			68
1598±54	biotite	(Archean) gneiss	northern Wisconsin	K-Ar			68
1545±55	whole rock	(Archean) gneiss	northern Wisconsin	Rb-Sr			68
Wyoming							
2670±55	whole rock	Lankin Dome granite	Granite Mountains	Pb-Pb	(19 samples)	GG	84
2605±80	whole rock	Lankin Dome granite	Granite Mountains	Th-Pb	(20 samples)	GG	84
1480±170	microcline	Lankin Dome granite	Granite Mountains	Pb-Pb	(4 samples)	GG	84
6–2400*	pitchblende, pyrite, and total ore	uranium ores	Shirley Basin	U-Pb		GG	52
VENEZUELA							
2220±40	whole rock	granulite gneiss Imataca Series	7°45'N, 63°00'W Guri Dam	U-Pb	(12 samples)	J	58
2022±67	whole rock	granulite gneiss Imataca Series	7°45'N, 63°00'W Guri Dam	Rb-Sr	(10 samples)	J	58

**Observed apparent ages range from 6 to 2400 m.y. — see reference for details.*

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