

Age dates from other publications

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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.



ISOCHRON/WEST
A Bulletin of Isotopic Geochronology

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AGE DATES FROM OTHER PUBLICATIONS – LIST 1

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This is the first in what is planned as an ongoing series. The purpose of these lists will be to summarize age date information that has appeared in recent months in other publications. The goal is to make available a summary, in one publication (Isochron/West), of newly published dates.

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.

In the future, these lists will attempt to make a comprehensive search for data published since the last issue of Isochron/West has gone to press. For this first list however, only selected publications, issued since January 1, 1977, were searched. This list contains dates from: Economic Geology, vol. 72, nos. 1-5 (Jan.-Aug. 1977); Geological Society of America Bulletin, vol. 88, nos. 1-8 (Jan.-Aug. 1977); Geological Society of America Abstracts with Programs, vol. 9, no. 4 (Feb. 1977); and U. S. Geological Survey Circular 727.

I would appreciate receiving any suggestions on how to improve future listings; which publications and/or serials to include; as well as corrections of any errors that are noted.

AGE (MY)	MINERAL	FORMATION/ROCK	LOCATION	METHOD	SAMPLE NUMBER	LAB	CITATION
ARGENTINA							
323±5	biotite	granodiorite	Taca Taca prospect, Salta province	K-Ar	8081C	C	19
281±4	biotite	tonalite porphyry	La Voluntad prospect, Neuquén province	K-Ar	8336A	C	19
270±4	biotite	rhyodacite porphyry	Yalguaraz prospect, Mendoza province	K-Ar	8336C	C	19
267±4	hydro-biotite	altered dacite porphyry	Alcaparrosa prospect, San Juan province	K-Ar	8336E	C	19
74.2±1.4	hydro-biotite	altered dacite porphyry	Campana Mahuida prospect, Neuquén province	K-Ar	8313(iii)	C	19
16.0±0.3	hydro-muscovite	altered latite porphyry	Paramillos Norte prospect, Mendoza province	K-Ar	8081D	C	19
15.4±0.3	hydro-biotite	altered dacite porphyry	Pancho Arias prospect, Salta province	K-Ar	8313(i)	C	19
15.0±0.2	biotite	dacite porphyry	Inca Viejo prospect, Salta province	K-Ar	8081B	C	19
13.0±0.3	hydro-biotite	altered quartz monzonite porphyry	Cerro Mercedario prospect, San Juan province	K-Ar	8336D	C	19
11.7±0.3	biotite	andesite porphyry	Arroyo Chita prospect, San Juan province	K-Ar	8336F	C	19
8.5±0.2	hydro-biotite	altered granodiorite porphyry	Río de las Vacas prospect, Mendoza province	K-Ar	8336B	C	19
CANADA							
British Colombia							
178±6	hornblende	metamorphosed amphibolite	Cache Creek area	K-Ar			20
42±10	whole rock	metamorphosed sill	S of Vernon	Rb-Sr			20
MEXICO							
Sonora							
1440±15	zircon	Cananea "granite" (quartz monzonite)	Cananea mining district	U-Pb		A	1
91.0±1.8	biotite	granodiorite	29° 54.2'N, 112° 43.9'W	K-Ar	S1G-6	E	9
60.9±9.9	hornblende		Cerro Bolo				

MEXICO
Sonora (continued)

90.4±2.7	hornblende	tonalite	29° 05.8'N, 112° 19.6'W Isla Tiburón	K-Ar	S2W-45	E	9
81.5±2.0	biotite						
85.2±1.7	biotite	tonalite	29° 12.8'N, 112° 27.8'W Isla Tiburón	K-Ar	S2R-19	E	9
84.5±7.9	hornblende						
85.1±1.7	hornblende	hornblende andesite	28° 52.3'N, 112° 01.8'W Kino Bay	K-Ar	S1G-5	E	9
71.7±1.4	biotite	granodiorite	29° 42.0'N, 111° 32.5'W Punta Cuevas	K-Ar	S0H-281	E	9
59.9±1.2	plagioclase						
70.1±1.9	biotite	granodiorite porphyry	29° 57.8'N, 112° 44.9'W N of Puerto Libertad	K-Ar	S0K-3714	E	9
64.3±2.0	hornblende						
69±1	zircon	Chivato monzodiorite	Cananea mining district	U-Pb		A	1
64.7±1.3	microcline	granite	29° 08.0'N, 111° 54.0'W E of Arroya de Noriega	K-Ar	S2G-23	E	9
64.4±9.6	hornblende	dacite porphyry	29° 54.9'N, 112° 42.1'W N of Puerto Libertad	K-Ar	S0K-276	E	9
63.9±2.0	biotite						
64.1±1.3	muscovite	adamellite	29° 48.3'N, 112° 50.2'W Sierra Bacha	K-Ar	S0H-264	E	9
29.5±0.6	biotite						
64±3	zircon	Cuitaca granodiorite	Cananea mining district	U-Pb		A	1
22.7±1.1	plagioclase	andesite breccia	28° 54.3'N, 112° 32.2'W Isla Tiburón	K-Ar	S2G-12	E	9
18.8±2.4	hornblende						
21.0±0.8	hornblende	andesite	28° 59.3'N, 112° 02.8'W E of Punta Santa Rosa	K-Ar	S2K-31	E	9
20.8±5.7	biotite	dacite	28° 52.6'N, 112° 00.1'W N of Kino Bay	K-Ar	S3G-764	E	9
17.8±0.8	hornblende						
14.0±3.0	hornblende	hornblende andesite	30° 05.7'N, 112° 37.8'W E of Cerro Libertad	K-Ar	S0S-2	E	9
12.7±0.4	plagioclase	dacite	30° 00.7'N, 112° 22.0'W Rancho Golendrina	K-Ar	S0G-4	E	9
12.7±1.1	plagioclase	rhyolite	29° 13.3'N, 112° 05.3'W Pico Demere	K-Ar	S2G-21	E	9
12.3±2.9	plagioclase	andesite	29° 06.1'N, 112° 06.8'W NW of Rancho Buenas Noches	K-Ar	S2G-17	E	9
11.9±0.5	whole rock	rhyolite	29° 44.9'N, 112° 29.8'W Sierra Bacha	K-Ar	S0H-215	E	9
11.3±1.2	plagioclase	andesite	29° 45.3'N, 112° 48.3'W W of Sierra Bacha	K-Ar	S0H-293	E	9
11.2±1.3	plagioclase	rhyolite	28° 53.9'N, 112° 32.1'W Isla Tiburón	K-Ar	S2B-27	E	9
10.9±2.3	plagioclase	andesite	28° 58.9'N, 112° 29.3'W Isla Tiburón	K-Ar	S2K-11	E	9
10.4±0.2	feldspar	rhyolite	29° 30.4'N, 112° 18.7'W E of Desemboque	K-Ar	S2G-114A	E	9
9.9±1.3	hornblende	andesite	28° 56.4'N, 112° 26.8'W Llano de Tecamote	K-Ar	S3G-714	E	9
7.0±0.3	whole rock	basalt	28° 48.5'N, 112° 24.8'W Isla Tiburón	K-Ar	S2B-3	E	9
6.4±1.9	whole rock	basalt	29° 42.7'N, 112° 23.6'W Poso Coyote	K-Ar	S2G-114	E	9
3.7±0.9	plagioclase	andesite dike	28° 54.5'N, 112° 31.2'W Isla Tiburón	K-Ar	S2G-13	E	9
PERU							
1914±44	whole rock	gneiss	15° 30'S, 75° 30'W Marcona region	Rb-Sr	637	C	5
1811±39	whole rock	gneiss	Mollendo-Quilca region	Rb-Sr	(6 samples)	C	5
1340	whole rock	schist	16° S, 74° W N of Rio Ocoña	Rb-Sr	632	C	5
539±90	whole rock	granite	16° S, 74° W	Rb-Sr	(8 samples)	C	5
374±6	K-feldspar	granite	7 km W of Camana	K-Ar	631	C	5
365±6	biotite	gneiss	16° 20'S, 74° W	K-Ar	634	C	5

PERU (continued)

339±5	muscovite	granite	16° S, 14° W 15 km N of Atico	K-Ar	635	C	5
192±3	K-feldspar	gneiss	quarry between Mollendo and La Joya	K-Ar	629	C	5

UNITED STATES

Alaska

442±13	amphibole	altered mafic volcanic rocks	55° 37.2'N, 133° 00.2'W Craig C-4 quad	K-Ar	65AE31	J	2
438±13	amphibole	altered mafic volcanic rocks	55° 42.5'N, 133° 09.5'W Craig C-4 quad	K-Ar	66AE91	J	2
299±9	biotite	Central Metlakatla pluton (quartz diorite)	55° 04.2'N, 131° 33.8'W Ketchikan A-5 quad	K-Ar	68ABg247	J	2
281±9	amphibole	altered mafic volcanic rocks	55° 32.0'N, 132° 51.5'W Craig C-3 quad	K-Ar	71AE67	J	2
188.5±5.7	hornblende	Afognak pluton	northern Kodiak Island	K-Ar	(3 samples)	F	12
187.6±5.6	white mica	schist	southern Kenai Peninsula	K-Ar			4
178±5	biotite	South Metlakatla pluton (quartz diorite and diorite)	55° 01.3'N, 131° 34.1'W Ketchikan A-5 quad Metlakatla Peninsula	K-Ar	68ABg727	J	2
170.0±5.5	crossite	schist	southern Kenai Peninsula	K-Ar			4
161.4±19.4	crossite	schist	southern Kenai Peninsula	K-Ar			4
145±4	hornblende	granodiorite pluton	61° 37.6'N, 143° 39.7'W McCarthy C-8 quad	K-Ar	71AMk19C	J	2
142±4	hornblende	granodiorite pluton	61° 44.4'N, 143° 49.6'W McCarthy C-8 quad	K-Ar	71AMk26A	J	2
142±4	hornblende	granodiorite pluton	61° 33.7'N, 143° 39.6'W McCarthy C-8 quad	K-Ar	70AMk60D-2	J	2
134±7	hornblende	granodiorite pluton	61° 32.6'N, 143° 42.4'W McCarthy C-8 quad	K-Ar	70AMk60B	J	2
119±4	hornblende	diorite or amphibolite pluton	59° 21.2'N, 136° 20.7'W Skagway B-4 quad	K-Ar	70AMk10B	J	2
112±3	amphibole	quartz diorite of Pin Peak	55° 32.5'N, 132° 50.7'W Craig C-3 quad	K-Ar	71AE68	J	2
111±3	biotite	granodiorite pluton	59° 16.6'N, 136° 26.3'W Skagway B-4 quad	K-Ar	70AMk14A-2	J	2
111±3	hornblende	quartz diorite pluton	59° 27.8'N, 136° 18.1'W Skagway B-4 quad	K-Ar	70AWk2A	J	2
110±3	biotite	quartz diorite pluton	59° 16.7'N, 136° 15.6'W Skagway B-4 quad	K-Ar	70AMk8A-2	J	2
108±3	biotite	quartz diorite pluton	59° 16.7'N, 136° 15.6'W Skagway B-4 quad	K-Ar	70AMk8A-2	J	2
105±3	hornblende	quartz diorite pluton	59° 16.7'N, 136° 15.6'W Skagway B-4 quad	K-Ar	70AMk8A-2	J	2
94.0±3.0	biotite	Darby pluton (quartz monzonite)	64° 57.0'N, 162° 19.2'W Solomon quad Seward Peninsula	K-Ar	71AMm415A	J	2
93.9±3.0	biotite	nepheline syenite dike	64° 43.5'N, 162° 53.1'W Solomon quad Seward Peninsula	K-Ar	71AGk259	J	2
92.8±2.6	hornblende	Darby pluton	64° 45.2'N, 162° 52.2'W Solomon quad Seward Peninsula	K-Ar	70AMm158b	J	2
88.3±1.5	biotite	(quartz monzonite)	64° 45.2'N, 162° 52.2'W Solomon quad Seward Peninsula	K-Ar	70AMm158b	J	2
65.6±2	biotite	granitic intrusive rock	60° 29.5'N, 158° 04.0'W Taylor Mtn. B-6 quad	K-Ar	69ACk1008	J	2
65.6±2	biotite	eastern pluton within Talkeetna Mountains	62° 09.0'N, 149° 13.5'W Talkeetna Mts. A-5 quad	K-Ar	72ACy117	J	2
63.0±2	hornblende	batholith (quartz diorite)	62° 09.0'N, 149° 13.5'W Talkeetna Mts. A-5 quad	K-Ar	72ACy117	J	2
64.8±2	biotite	unnamed pluton within Talkeetna Mountains	62° 08.8'N, 149° 18.5'W Talkeetna Mts. quad	K-Ar	72ACy127	J	2
62.7±2	hornblende	batholith (tonalite)	62° 08.8'N, 149° 18.5'W Talkeetna Mts. quad	K-Ar	72ACy127	J	2
64.2±2	hornblende	Coast Range batholith	59° 35.1'N, 136° 01.8'W Skagway C-3 quad	K-Ar	70AMk15D	J	2
55.5±2	biotite	(leucogranite)	59° 35.1'N, 136° 01.8'W Skagway C-3 quad	K-Ar	70AMk15D	J	2
59.9±1.8	biotite	Sanak pluton (granodiorite or quartz diorite)	54° 29.0'N, 162° 48.0'W False Pass quad	K-Ar	S-70	J	2

Alaska (continued)

57.6±2 56.6±2	hornblende biotite	quartz monzonite porphyry pluton	62° 22.0'N, 153° 47.5'W McGrath B-2 quad	K-Ar	67AMa226	J	2
56.5±2 56.4±2	hornblende biotite	quartz monzonite porphyry pluton	62° 22.0'N, 153° 47.5'W McGrath B-2 quad	K-Ar	70AMa226	J	2
33.9±2.0	hornblende	dacite porphyry	61° 03.9'N, 149° 47.8'W Anchorage quad	K-Ar	70ACs423	J	2
33.0±1	hornblende	quartz diorite pluton	59° 19.1'N, 135° 48.7'W Skagway B-3 quad	K-Ar	70AMk3C	J	2
30.6±1	biotite	granodiorite pluton	59° 15.7'N, 136° 00.0'W Skagway B-3 quad	K-Ar	70AWk5D	J	2
29.3±1	biotite	granodiorite pluton	59° 15.9'N, 136° 01.1'W Skagway B-3 quad	K-Ar	70AWk6A	J	2
22.7±1	biotite	quartz diorite pluton	59° 19.8'N, 135° 48.7'W Skagway B-3 quad	K-Ar	70AMk3A	J	2
11.1±3 3.4±0.2	hornblende biotite	Shaler pluton (granodiorite)	53° 37.7'N, 166° 56.0'W Aleutian Islands	K-Ar	54Sn197	J	2
11.0±0.66 8.6±1.0	plagioclase zircon	coal	S35, T5S, R12W Seldovia C-4 quad	K-Ar fission track	7-21-73-1	F I	23
8.7±0.96 8.3±1.0	plagioclase zircon	coal	S26-27, T1S, R14W Kenai A-5 quad	K-Ar fission track	7-14-73-3	F I	23
8.6±0.52 7.2±0.72	plagioclase hornblende	coal	S6, T1N, R12W Kenai A-4 quad	K-Ar	7-13-73-6	F	23
7.9±0.79 7.9±1.0	plagioclase zircon	coal	S17, T5S, R11W Seldovia C-4 quad	K-Ar fission track	7-22-73-4	F I	23
7.9±1.0	zircon	coal	S35, T5S, R12W Seldovia C-4 quad	fission track	7-21-73-5	I	23
6.8±0.73	plagioclase	coal	S12, T1N, R13W Kenai A-4 quad	K-Ar	7-13-73-9	F	23
3.8±0.8	hornblende	dacite (intrusive rock)	61° 37.6'N, 143° 39.3'W McCarthy C-8 quad	K-Ar	70AMk61c	J	2
2.84±0.14	basalt	basalt (flow)	65° 25.3'N, 166° 32.6'W Nome quad	K-Ar	73Ahp47	J	2

Arizona

28.8	whole rock	tuff	Gila Bend Mountains	K-Ar		G	15
26.7	whole rock	trachybasalts	Gila Bend Mountains	K-Ar		G	15
23.5-20.7	whole rock	tholeiitic basalts	Gila Bend Mountains	K-Ar		G	15
19.9-17.7	whole rock	trachybasalts and trachyandesites	Gila Bend Mountains	K-Ar		G	15
17.1±1	biotite	San Manuel Formation (tuff)	33° 02.1'N, 110° 59.4'W Kearny quad Pinal Co.	K-Ar	12-100	J	2
16.7	whole rock	basalt	Palo Verde Hills	K-Ar		G	15
14.6	whole rock	basalt	Belmont Mountains	K-Ar		G	15
14.2	whole rock	basalt	Vulture Mountains	K-Ar		G	15
13.6	whole rock	basalt flow	Vulture Mountains	K-Ar		G	15

California

1715±30	whole rock	mylonites	San Gabriel Mountains	Rb-Sr			6
259	zircon	diorite pluton	between Sonora and Mariposa	U-Pb			16
236±4	hornblende	schist	northern Sierra Nevada	K-Ar			25
190	zircon	pluton	between Sonora and Mariposa	U-Pb			16
162	zircon	diorite stock	between Sonora and Mariposa	U-Pb			16
154-111	whole rock	South Fork Mountain Schist	northern Coast Ranges	K-Ar	(several samples)		13
150-140	whole rock	white micas and green amphiboles	northern Coast Ranges	K-Ar	(several samples)		13

California (continued)

147-106	whole rock	blue amphiboles	northern Coast Ranges	K-Ar	(several samples)		13
140	zircon	Guadalupe igneous complex	between Sonora and Mariposa	U-Pb			16
86.7±2.6	biotite	quartz monzonite	36° 09.8'N, 117° 55.2'W S25, T20S, R37E Inyo Co.	K-Ar	Haiwee-1	J	2
58.5±4	whole rock	schist	San Gabriel Mountains	Rb-Sr			6
14.6±1	plagioclase	basalt of Zuma Canyon	34° 00.0'N, 118° 48.3'W Point Dume quad Los Angeles Co.	K-Ar	69C24	J	2
0.536±0.016	obsidian	rhyolite of Camelback Ridge (obsidian)	38° 54.4'N, 122° 47.9'W Kelseyville quad	K-Ar	H72-73D1	J	2
0.466±0.015	obsidian	rhyolite of Thurston Creek	38° 55.4'N, 122° 41.8'W Clear Lake Highlands quad	K-Ar	H72-1	J	2
0.088±0.013	obsidian	obsidian of Borax Lake (rhyolite)	38° 58.1'N, 122° 38.7'W Clear Lake Highlands quad	K-Ar	H72-52	J	2
Idaho							
81.7±2.5	biotite	Idaho batholith (quartz monzonite)	43° 27.6'N, 114° 21.5'W S31, T2N, R18E Bellevue quad Blaine Co.	K-Ar	A-230	J	2
Maryland/Virginia							
550-400	zircon	metavolcanic rocks	central Appalachian Piedmont	U-Pb	(5 samples)	I	11
Mississippi							
91.3±3.4	biotite	analcimite	S15, T14N, R4W Humphreys Co.	K-Ar	4224	B	22
78.3±2.9	whole rock	phonolite	S15, T14N, R4W Humphreys Co.	K-Ar	5172	B	22
Nevada							
31.7±1.8	hornblende	Singatse tuff	Yerington district Lyon Co.	K-Ar	S-29	B	17
27.2±1.1	biotite						
28.0±1.0	biotite	Guild Mine Member, Mickey Pass tuff	Yerington district Lyon Co.	K-Ar	675	B	17
25.1±1.8	plagioclase						
27.8±1.0	biotite	Weed Heights Member, Mickey Pass tuff	Yerington district Lyon Co.	K-Ar	661	B	17
26.1±0.9	sanidine						
27.1±0.9	biotite	Guild Mine Member, Mickey Pass tuff	Yerington district Lyon Co.	K-Ar	267	B	17
24.1±0.9	biotite	tuff and breccia of Gallagher Pass (pumice)	Yerington district Lyon Co.	K-Ar	662	B	17
23.6±2.0	plagioclase						
18.9±2.8	plagioclase	andesite of Lincoln Flat (dike)	Yerington district Lyon Co.	K-Ar	602	B	17
18.5±2.5	hornblende						
18.7±1.9	hornblende	andesite of Lincoln Flat (breccia)	Yerington district Lyon Co.	K-Ar	671	B	17
17.0±2.5	plagioclase						
18.7±2.5	hornblende	andesite of Lincoln Flat (dacite intrusion)	Yerington district Lyon Co.	K-Ar	664	B	17
18.5±2.7	plagioclase						
17.7±2.4	hornblende	andesite of Lincoln Flat (flow)	Yerington district Lyon Co.	K-Ar	665	B	17
10.6±1.0	whole rock	basalt flow	McConnell Canyon Lyon Co.	K-Ar	431	B	17
8.6±1.3	whole rock	basalt flow	McConnell Canyon Lyon Co.	K-Ar	584	B	17
8.2±1.2	whole rock	basalt flow	Yerington district Lyon Co.	K-Ar	583	B	17

North Carolina

64.5±2	glauconite	Beaufort Formation (sediments)	Lenoir and Craven Co.	Rb-Sr	LEN2A	H	10
57.8±3.4	glauconite	Beaufort Formation (sediments)	Lenoir and Craven Co.	Rb-Sr	LEN2C	H	10
55.7±6.7	glauconite	Beaufort Formation (sediments)	Lenoir and Craven Co.	Rb-Sr	LEN2B	H	10

Oregon

14.9±0.4	whole rock (?)	Columbia River basaltic lavas	SE of Prairie City	K-Ar (?)			18
12.4±0.5	whole rock (?)	andesitic flows	SE of Prairie City	K-Ar (?)			18
6.4	whole rock (?)	Rattlesnake tuff	S of Prairie City	K-Ar (?)			18

Utah

570±7	hornblende	Browns Hole Formation (trachyte clast)	41° 19.6'N, 111° 44.0'W 5 mi NE of Huntsville	K-Ar	72MC-117e	J	2
76.7±5.1	plagioclase	Mayflower stock	40° 36.3'N, 111° 26.2'W	K-Ar	10	I	3
74.9±4.8	plagioclase		Park City mining district				
41.2±1.6	hornblende						
46.7±2.3	hornblende	Alta stock (porphyritic phase)	40° 36.5'N, 111° 33.6'W	K-Ar	2	I	3
46.6±1.9	hornblende		Park City mining district				
32.1±1.2	biotite						
40.3±1.6	hornblende	Valeo stock	40° 35.0'N, 111° 29.9'W	K-Ar	6	I	3
			Park City mining district				
39.8±1.2	hornblende	Valeo stock	40° 35.0'N, 111° 29.3'W	K-Ar	7	I	3
34.6±1.6	biotite		Park City mining district				
39.7±1.2	hornblende	Flagstaff stock	40° 36.1'N, 111° 29.2'W	K-Ar	8	I	3
			Park City mining district				
38±1.4	phlogopite	alteration in Deseret Formation	Ontario Mine Park City mining district	K-Ar	26	I	3
37.8±1.5	hornblende	dike	40° 35.8'N, 111° 28.9'W	K-Ar	9	I	3
			Park City mining district				
36.4±1.3	hornblende	volcanic flow	40° 40.9'N, 111° 26.1'W	K-Ar	16	I	3
33.9±1.3	biotite		Park City mining district				
36.2±1.3	hornblende	Indian Hollow stock	40° 38.8'N, 111° 21.2'W	K-Ar	18	I	3
			Park City mining district				
36.1±1.3	hornblende	Indian Hollow plug	40° 39.0'N, 111° 21.3'W	K-Ar	19	I	3
			Park City mining district				
35.7±1.3	phlogopite	alteration in Humbug Formation	Ontario Mine Park City mining district	K-Ar	20	I	3
35.7±1.3	plagioclase	dike	40° 36.2'N, 111° 28.5'W	K-Ar	15	I	3
35.6±1.3	plagioclase		Park City mining district				
35.2±1.0	hornblende	Park Premier stock	40° 38.5'N, 111° 22.4'W	K-Ar	17	I	3
33.9±1.2	biotite		Park City mining district				
35.2±1.3	biotite	Pine Creek stock	40° 33.8'N, 111° 29.7'W	K-Ar	5	I	3
			Park City mining district				
35.1±1.3	sericite	alteration in Humbug Formation	Ontario Mine Park City mining district	K-Ar	21	I	3
34.8±1.3	biotite	Clayton Peak stock	40° 35.8'N, 111° 31.7'W	K-Ar	4	I	3
			Park City mining district				
34.5±1.4	biotite	Ontario stock	Mayflower Mine Park City mining district	K-Ar	13	I	3
34.4±1.3	phlogopite	alteration of quartzite	Ontario Mine Park City mining district	K-Ar	25	I	3
34.4±1.5	muscovite	alteration in Deseret Formation	Ontario Mine Park City mining district	K-Ar	22	I	3
34.0±1.1	biotite	Ontario stock	Ontario Mine	K-Ar	12	I	3
33.7±1.3	biotite		Park City mining district				
33.4±1.3	biotite	Ontario stock	Ontario Mine Park City mining district	K-Ar	11	I	3

Utah (continued)							
33.3±1.3	biotite	Ontario stock	Ontario Mine Park City mining district	K-Ar	14	I	3
33.3±1.3	biotite	altered Mayflower stock	Mayflower Mine Park City mining district	K-Ar	23	I	3
33.1±1.3	biotite	altered Mayflower stock	Mayflower Mine Park City mining district	K-Ar	24	I	3
32.9±1.2	biotite	Clayton Peak stock	40° 36.4'N, 111° 33.3'W Park City mining district	K-Ar	3	I	3
31.7±1.0	biotite	Alta stock	40° 36.5'N, 111° 34.1'W	K-Ar	1	I	3
31.6±1.0	biotite	(porphyritic phase)	Park City mining district				
Washington							
108±3	biotite	gneissic trondhjemite	48° 35.8'N, 120° 04.5'W	K-Ar	T-155	J	2
94.6±2.8	muscovite	of Tiffany Mountain					
98.5±3.0	hornblende	Old Baldy pluton	48° 36.7'N, 119° 56.8'W	K-Ar	T-152	J	2
90.1±2.7	biotite	(granodiorite)					
97.7±2.9	biotite	Cathedral pluton	48° 52.3'N, 120° 01.0'W	K-Ar	H-1	J	2
		(quartz monzonite)					
93.5±2.8	hornblende	gneissic trondhjemite	48° 39.8'N, 119° 57.9'W	K-Ar	T-153	J	2
88.5±2.7	biotite	of Tiffany Mountain					
91.7±2.8	biotite	gneissic trondhjemite	48° 29.5'N, 119° 56.4'W	K-Ar	T-154	J	2
88.5±2.7	muscovite	of Tiffany Mountain					
81.2±2.4	hornblende	Conconully pluton	48° 35.7'N, 119° 52.1'W	K-Ar	T-156	J	2
78.8±2.4	biotite	(granodiorite)					
54(?)	zircon	Teanaway tuff	Central Cascades	fission track		I	24
51	zircon	Silver Pass volcanics	Central Cascades	fission track		I	24
49±5	zircon	Foster's Silver Pass Volcanics (tuff)	Central Cascades	fission track		J	8
42.9±1.3	hornblende	dacite of Twin Peaks (lava flow)	48° 41.2'N, 119° 45.5'W	K-Ar	C-559	J	2
42	zircon	silicic volcanics	Cascade foothills E of Mount Vernon	fission track		I	24
39(?)	zircon	Ohanapecosh sequence: Naches unit	Central Cascades	fission track		I	24
35	zircon	Ohanapecosh sequence: Barlow Pass unit	Central Cascades	fission track		I	24
<35	zircon	Stevens Ridge sequence: Monte Christo unit	Central Cascades	fission track		I	24
34	zircon	Ohanapecosh sequence: Mt. Catherine unit	Central Cascades	fission track		I	24
33	zircon	tuff	Central Cascades	fission track		I	24
31	zircon	Ohanapecosh sequence: Ohanapecosh unit	Central Cascades	fission track		I	24
<31	zircon	Stevens Ridge sequence: Stevens Ridge Formation	Southern Cascades	fission track		I	24
29	zircon	Stevens Ridge sequence: Stampede unit	Central Cascades	fission track		I	24
28	zircon	Stevens Ridge sequence: Skykomish unit	Central Cascades	fission track		I	24
>24	zircon	Stevens Ridge sequence: Monte Christo unit	Central Cascades	K-Ar		I	24
23	zircon	Stevens Ridge sequence: Eagle unit	Central Cascades	fission track		I	24
Wyoming							
2866±74	whole rock	gneiss	Bighorn Mountains	Rb-Sr	(8 samples)	D	21
2830	whole rock	gneiss	Sierra Madre Mountains	Rb-Sr	QBG150	I	7
2814±104	whole rock	granite	Bighorn Mountains	Rb-Sr	(6 samples)	D	21

Wyoming (continued)

2560±100	whole rock	Baggot Rocks Granite	Sierra Madre Mountains	Rb-Sr	(5 samples)	I	7
2076	whole rock	gneiss	Sierra Madre Mountains	Rb-Sr	QBG101	I	7
1980±70	whole rock	Encampment River Granodiorite	Sierra Madre Mountains	Rb-Sr	(4 samples)	I	7
1880±60	whole rock	Big Creek Gneiss	Sierra Madre Mountains	Rb-Sr	(3 samples)	I	7
1828	microcline epidote	Big Creek Gneiss	Sierra Madre Mountains	Rb-Sr	BCF011	I	7
1680±50	whole rock	Sierra Madre Granite	Sierra Madre Mountains	Rb-Sr	(6 samples)	I	7
1660±85	whole rock	Encampment River Granodiorite	Sierra Madre Mountains	Rb-Sr	(5 samples)	I	7
1600±50	whole rock	White quartz monzonite	Sierra Madre Mountains	Rb-Sr	(4 samples)	I	7
1600±200	whole rock	Green Mountain Formation	Sierra Madre Mountains	Rb-Sr	(4 samples)	I	7
1480±5	oligoclase biotite epidote	Baggot Rocks Granite	Sierra Madre Mountains	Rb-Sr	AG109	I	7
1474	microcline	Sierra Madre Granite	Sierra Madre Mountains	Rb-Sr	RG206M	I	7
1420	whole rock	North Park Granite	Sierra Madre Mountains	Rb-Sr	NPC101	I	7

Laboratories: A—Calif. Inst. of Technology; B—Geochron Lab.; C—Inst. of Geological Sciences (London); D—Ohio State; E—San Diego State Univ.; F—Univ. of Alaska; G—Univ. of Arizona; H—Univ. of North Carolina (Chapel Hill); I—USGS (Denver); J—USGS (Menlo Park)

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