K-Ar dates on intrusive rocks and alteration associated with molybdenum mineralization at Climax and Urad, Colorado, and Questa, New Mexico

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Isochron/West, Bulletin of Isotopic Geochronology, v. 3, pp. 29

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SHORT NOTES

K-AR DATES ON INTRUSIVE ROCKS AND ALTERATION ASSOCIATED WITH MOLYBDENUM MINERALIZATION AT CLIMAX AND URAD, COLORADO, AND QUESTA, NEW MEXICO

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The following 3 K-Ar age determinations were run in 1962 by Geochron Laboratories, Inc., for American Metal Climax, Inc. (Amax); constants used in age calculations were $\lambda_\epsilon = 0.585 \times 10^{-10}$/yr; $\lambda_\beta = 4.72 \times 10^{-10}$ yr; K^{40}/K total $= 1.22 \times 10^{-4}$ gm/gm.

1. G-MO146/AM-X6650 K-Ar (muscovite) 29.5±1.0 m.y.

Porphyritic granite. (From drill core from below 929 level, Climax Mine; Lake Co., CO). Analytical data: K = 4.51%; $\overset{*}{A}r^{40}$ = 0.0096 ppm; $\overset{*}{A}r^{40}/\Sigma Ar^{40}$ = 50%, 60%; analyzed separate was 55% muscovite, 10% biotite, 30% quartz, 5% feldspar, trace of sulfides (grain size -40 + 100 mesh).

2. G-BO147/AM-X6651 K-Ar (biotite) 25.0±1.3 m.y.

Biotite in walls of molybdenite-bearing veinlets (dump of Moly Tunnel adit, Questa Mine; Taos Co., NM) in mineralized granite. Analytical data: K = 7.51%; $\overset{*}{A}r^{40}$ = 0.0136 ppm; $\overset{*}{A}r^{40}/\Sigma Ar^{40}$ = 43%, 45%; separate is 95+% light brown biotite (grain size -40 + 100 mesh). Collected by: H. T. Schassberger.

3. G-MO216/AM-X6700 K-Ar (sericite) 26.0±0.9 m.y.

Mineralized porphyry of Tungsten Slide complex (of McKenzie, Univ. Mich. Ph.D. Thesis, 1970). (Upper levels, Urad Mine; at Red Mountain, Clear Creek Co., CO). Analytical data: K = 5.60%; $\overset{*}{A}r^{40}$ = 0.0105 ppm; $\overset{*}{A}r^{40}/\Sigma Ar^{40}$ = 31%, 42%; analyzed separate was 90% sericite, 5% quartz, 5% plagioclase, trace of sulfides (grain size -100+200 mesh). Collected by: H. T. Schassberger. Comment: Sericite alteration believed to be contemporaneous with mineralization and emplacement of intrusive complex.

[Isochron/West, no. 3, January 1972]