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NUEVAS EDADES K-Ar DE INTRUSIVOS DE LA CORDILLERA OCCIDENTAL Y ALTIPLANO DE PERU CENTRAL. IMPLICACIONES EN LA MIGRACION CENOZOICA DE LA ACTIVIDAD MAGMATICA Y EN LA METALOGENESIS

NEW K-AR AGE DETERMINATIONS OF INTRUSIVE ROCKS FROM WESTERN CORDILLERA AND HIGH PLATEAUS OF CENTRAL PERU. IMPLICATIONS ON CENOZOIC MIGRATION OF MAGMATIC ACTIVITY AND ON METALLOGENESIS.

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The post-Albian evolution of the Andes of Central Peru is characterized by the importance of the igneous activity, both effusive and intrusive, and at least six distinct episodes

TABLA 1
DETERMINACIONES ISOTOPICAS K-Ar DE ROCAS INTRUSIVAS DE LA CORDILLERA OCCIDENTAL Y ALTIPLANOS DEL PERU CENTRAL
K-Ar ISOTOPIC DATA OF INTRUSIVE ROCKS FROM WESTERN CORDILLERA AND HIGH PLATEAUS OF CENTRAL PERU

Sample number	Petrographic	Longitude	Latitude	Analysed fraction	K_2O %	$^{40}Ar_{rad}$ %	$^{40}Ar_{rad}$ (nl/g)	t(Ma ± 1σ)
Repay	intrusions	77°02 44W	10°25 27S	R	3.22	73.3	0.565	6.39 ± 0.31
				B	8.61	88.2	1.909	6.86 ± 0.24
				FK	14.07	83.0	2.50	6.51 ± 0.09
Rupay	rhyolitic dyke	76°48 47W	10°41 25S	R	3.59	56.5	0.397	3.43 ± 0.19
				B	8.97	49.5	0.993	3.43 ± 0.18
				FK	12.03	72.0	1.155	2.97 ± 0.11
Chungar	granite	76°31 46W	11°07 07S	B (CU31)	7.85	78.1	3.29	13.3 ± 0.3
		76°32 07W	11°07 14S	B (CU56)	7.78	76.5	3.40	13.5 ± 0.3
		76°31 44W	11°07 22S	B (CU57)	8.91	81.7	3.87	13.4 ± 0.3
Don Miguel	granodiorite	76°33 25W	11°03 00S	B	8.20	71.1	2.67	10.06 ± 0.31
Racco	dacitic stock	76°22 42W	10°46 34S	R	2.40	86.4	2.75	35.2 ± 0.6
Huangoc	quartz monzonite	76°21 14W	10°40 05S	R	2.63	76.7	3.13	36.5 ± 1.0
Yanamate	quartz monzonite	76°14 02W	10°42 23S	R	3.74	76.9	1.844	16.2 ± 0.4
				Pl	1.20	63.2	0.509	13.1 ± 1.1
Milpo	intrusions	76°14 12W	10°35 07S	R (M116)	4.03	82.4	3.65	27.8 ± 0.6
Atacocha		76°14 27W	10°34 28S	R(AT33)	3.66	76.9	3.49	29.3 ± 0.5
		76°14 17W	10°34 53S	R(AT47)	2.98	87.0	2.60	26.3 ± 0.4
				Pl(AT47)	0.71	62.3	0.599	25.9 ± 1.5
Marlac	quartz	76°07 58W	10°40 44S	B	8.59	92.4	8.52	31.1 ± 0.4
				Pl	0.75	62.3	0.586	24.1 ± 1.9
Sunkullo	quartz monzonite	76°08 26W	10°39 21S	B	8.59	92.4	8.62	30.9 ± 0.5
				Pl	0.73	79.8	0.579	24.4 ± 0.9

Isotopic constants and analytical processing after Lavenu et al, this volume. Analysed fractions: R: whole rock; B: biotite; FK; K-feldspar; PL: plagioclase.
Constantes isotópicas y procesos analíticos según Lavenu et al, este volumen. Franciones analizadas: R: roca total; B: biotita; FK: feldespato potásico; PL: plagioclasa.

of compressional tectonics. In this paper, new K-Ar age determinations on intrusive rocks from the Cajatambo-Oyon-Cerro de Pasco area are presented. In conjunction with other published and unpublished data, these new results allow to precise the ages and the transversal extensions of the different Cenozoic magmatic arcs.

We demonstrate that the Cenozoic migration of the magmatic activity in the central segment of the Peruvian Andes is not a simple eastward progressive migration. We suggest that the five defined pulses of this complex migration have to be interpreted in terms of a sequence of progressive and/or abrupt changes in the modalities of the subduction of the oceanic Nazca Plate under the continental South-American Plate.

We also discuss some metallogenetic implications of this new data, in particuliar the unexpected very old age of some of the ocurrences (late Eocene-early Oligecene).