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MESOPROTEROZOIC BIMODAL MAGMATISM IN THE SOUTHEASTERN PART OF RONDONIA, SW AMAZONIAN CRATON: $^{40}AR/^{39}AR$ GEOCHRONOLOGY AND TECTONIC IMPLICATIONS

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$^{40}Ar/^{39}Ar$ analyses were performed on basic rocks, granites and gneisses that occur along a 1000 km section, embracing parts of the Rio Negro-Juruena (1.75-1.55 Ga), Rondonian (1.48-1.41 Ga) and Sunsás (1.36-0.97 Ga) provinces - SW sector of Amazonian Craton. This is a key-area for undestanding tectonic and magmatic processes related to the agglutination of Rodinia (1.35-1.00 Ga), as well as for global correlation of Mesoproterozoic intraplate features, like AMCG suites, intercontinental shear zones, and rift-basins. Our data, combined with the geochronologic background, help to constrain important processes of extension tectonics and crustal reworking associated with the Rondonian and Sunsás orogenies, at the time of convergence between Laurentia and SW Amazonia.

Mafic and felsic plutonic rocks located in the northern part of the area yield 40Ar/39Ar ages in the range 1.51-1.58 Ga, and are correlatable with the Serra da Providência Suite. These rocks establish an intraplate episode that originated the oldest phase of AMCG bodies, intrusive into the Rio Negro-Juruena province. In the southeasterly sector of the Rondonian province, the $^{40}Ar/^{39}Ar$ ages of amphibolites, paragneisses and anactetic granites range from 1.36 to 1.30 Ga. These rocks comprise the Colorado Metamorphic Suite (CMS), which predates the Nova Brasilândia Group (1.12-1.11 Ga). The latter sequence fills one of the rift-basins related to the Sunsás orogeny. Un-

deformed meta-gabbros of the CMS, as well as the neighbouring gneissic rocks yield U-Pb and Rb-Sr ages of 1.35 and 1.36 Ga, respectively. All these data are indicative of a tectonomagmatic event in the SW Amazonian craton. This idea is also supported by comparable U-Pb ages have been reported for the peak of regional granulitic metamorphism in central Rondônia, as well as for some of the intrusive plutons. Finally, some scattered amphibolites yield constrasting $^{40}Ar/^{39}Ar$ ages: 1.08 Ga; 1.13-1.15 Ga; 1.16-1.17 Ga and 1.25 Ga. These apparent ages compare well with the range of K/Ar and Rb-Sr ages available for country rocks in Central Rondônia, which have been reworked during the Sunsás orogeny. Nevertheless, some of the analyses may also be influenced either by emplacement of the Alto Candeias (1.27 Ga) and Santa Clara (1.08-1.07 Ga) plutonic suites, or by the Ji-Paraná shear zone (1.08-1.05 Ga) - an important tectonic feature of the Rondonian province.