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**Área Técnica do trabalho:** TEMA 17 - Tectônica e Evolução Geodinâmica

**Título do Trabalho:** **Geochronology and Stratigraphy of the Boa Vista de Minas Complex: An Example of a Meso- to Neoproterozoic Greenstone-belt in Amphibolite- to Granulite-Facies**

**Forma de apresentação:** Oral

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**Resumo do trabalho:**

The Boa Vista de Minas Complex is an amphibolite to granulite facies metamorphic complex, it occurs in the form of disrupted, folded and keel-shaped stripes amid metagranite-migmatite domes of the Divinópolis Complex. Its lithostratigraphic architecture and thickness are difficult to define due to intense weathering and tectonic overprintings. Its internal organization is depicted by three main facies. The basal level, referred as Nova Serrana Facies, is composed mainly of garnet-amphibolites and mafic granulites (metabasite), garnet-cumingtonite amphibolites and granulites (hydrothermally-altered metabasite), metaultramafic rocks, biotite-cumingtonite amphibolites (altered metabasalt-andesite), lenses of garnet-anthophyllite-cordierite schists (hydrothermally-altered-metandesite). Zircon U-Pb analysis (LA-ICP-MS in zircon) yielded a crystallization age of ca 2.87 Ga for a sample of a garnet-anthophyllite-cordierite schist from the Nova Serrana Facies establishes the basal magmatism. Orthopyroxene-bearing iron formation and ferruginous meta-chert define interbedded layers along the basal sections and define the Córrego do Cedro facies. Overlying these two units occurs the Igaratinga facies. It consists of a set of calc-silicate rocks with lenses of garnet amphibolites and granulites, sillimanite gneisses and lenses of metaultramafic rocks with common lenses of garnet-biotite-hypersthene granulite (meta andesite). Sampled meta-andesite yielded a concordia age of ca 2.73 Ga (U-Pb, LA-ICP-MS in zircon) and light luminescence zircon rims plus the neoformed zircons yielded another Concordia age of ca 2.0 Ga. The former is interpreted as a crystallization age and the latter as a high-grade metamorphic overprint. The (LREE)-rich patterns, Nb-Ta-Ti depletions, and variable Th/Nb ratios present in metabasic and intermediate rocks of the Nova Serrana and Igaratinga facies are similar to those formed under an enriched (LREE)-plume-arc interaction. The similar lithological, lithogeochemical and crystallization ages obtained for the rocks of the Boa Vista de Minas Complex make it reasonable to consider them as a high-grade counterpart of the Pitangui Greenstone Belt, intensely deformed and metamorphosed under amphibolite to granulite facies conditions, implying that the tectonic-thermal metamorphic event associated with the final stages of the Minas-Bahia Orogeny was extended to the northern limit of the Divinópolis Complex and is more extensive than expected.

**Palavras-Chave do trabalho:** (LREE)-enriched mantle sources; Divinópolis Complex; granulite metamorphic event; Pitangui greenstone-belt;