

## **Metallogenetic map of Rio de Janeiro and parts of São Paulo and Minas Gerais States, Southeast Brazil**

<sup>1</sup>MORAIS, S.M. and <sup>2</sup>ARTUR, A.C. <sup>1</sup>Geological Survey of Brazil - CPRM, São Paulo, Brazil; <sup>2</sup>Universidade Estadual Paulista, Rio Claro, Brazil

The compilation and the integration of geologic data and the mineral resources of Rio de Janeiro Quadrangle, including parts of São Paulo and Minas Gerais states were processing. The Precambrian lithostratigraphic units were organized into three tectonics domains, intruded by granitoids of Brasiliano age and bounded by large shear zones, that are associated to Neoproterozoic-Eopaleozoic pull-apart basins. These domains are Archaean to Middle Proterozoic and are formed by ortho- and para-derived rocks, distinguished by metamorphic grade, age and lithologies associated to basic flows, dikes and various types of alkaline rocks of Mesozoic age. The Phanerozoic sedimentary covers are represented by Permo-carboniferous deposits. Around 1,300 mineral occurrences (mines, deposits or simple occurrences) have been recorded. Most of them non-metallic minerals. Exploitation is concentrated in bauxite, calcareous and phosphatic rocks, clays, dimension stones, manganese, peat, pegmatitic minerals, phyllite, quartzite, and sands. The other resources include asbestos/talc, arsenic, beryl, coal, corundum, gold, graphite, iron, sulfides, tin, titanium, thorium, tungsten, and vermiculite, none under effective production. In the Precambrian area the highest potential is for to bauxite, calcareous rocks, manganese, gold, quartzite, tin, tungsten.