

## **NEOPROTEROZOIC BRAZILIAN OPHIOLITES: OCCURRENCES AND METALLOGENIC POTENTIAL**

SUITA, M. T. F. Departamento de Engenharia de Minas, Escola de Minas, UFOP, Ouro Preto, Brasil

Brazilian Neoproterozoic ophiolitic complexes occur in the Tocantins Province (TP), in the São Francisco Province (SFP), and in the Amazonian Province (AP). Other ophiolites occur in the Rio de La Plata Craton (RPC; e.g., the Cerro Mantiqueiras Body, in the Mantiqueiras Province, MP), and in the Borborema Province (BP; e.g., the Pedra Branca Complex in the Northeastern of Brazil). The Quatipuru Complex (QC) is the biggest (50 Km x 3 Km) Brazilian ophiolite in the TP but it lacks chromite or PGE+Au mineralization. These ophiolites limit the SFP, AP, TP, and MP, and associated with continental-continental or continental-ocean type collision. The tectonic slices, medium to low grade metamorphism in the TP, SFP, MP, BP and AP, and subordinated volume of the small mafic-ultramafic alloctone ophiolitic bodies are due to the Brasiliano-Panafrican Cycle (ca. 790-550 Ma.). Some alpine-type (e.g., Morro Feio Body, MFB) bodies in the TP have mantle residual harzburgite and tholeiitic gabbro compositions. MFB-type bodies have ellipsoidal shape (up to 3.6 Km x 1.5 Km), podiform chromitite (0.5 m x 40 m) concordant with host rock foliation, and have Pt (1000 ppb in chalcedony veins into serpentinites) and/or Au (8272 ppb in chromitites) anomalies. These ophiolites may host PGE+Au metamorphic-hydrothermal deposits due to a Neoproterozoic Pt-Au-remobilization from igneous sites to tectonic-metamorphic-hydrothermal structures. Control for noble metal deposits in the Brazilian ophiolites is the Brasiliano Cycle.