

METAMAFIC/ULTRAMAFIC ROCKS OF ITAPIRA/AMPARO METAMORPHIC BELT

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The Itapira/Amparo metamorphic belt is composed by metasedimentary rocks of Itapira Group interlayered with quartz-feldspathic gneisses and migmatites more or less foliated, of trondhjemitic/tonalitic to monzogranitic compositions (Amparo Group), granitoids derived from anatexis or injection, and also metamafic/ultramafic rocks. The metamafic/ultramafic rocks occur as tabular to lenticular, centimetric to decametric bodies, parallel to the regional foliation, whose contacts with host rocks are abrupt, diffuse by assimilation and, sometimes, transitional with hornblende gneisses. Some bodies, surrounded by granitic material, show high grade modification of amphibole to biotite, with the formation of biotite schists. Petrographically, they are divided into: a) mafic lithotypes: gneissic and similar rocks, eclogitoid, gabbroid rocks, amphibolites and calc-silicate rocks; b) ultramafic lithotypes: ultramafic schists, amphibole schists and metapyroxenites. Lithochemical analyses detected strong negative anomaly of cerium in some samples, including the eclogitoid, suggesting intensive interaction with ocean water or ocean floor hydrothermalism. On the other hand, they evidence that the tectonic-metamorphic processes which actuated over these rocks, produced chemical changes, in variable amounts, not only in major elements, but in trace and rare-earth elements too, making difficult the investigation of the source of these rocks. The geological context indicates that the ultramafic rocks and some of the mafics may be ophiolites disrupted by tangential to directional tectonic process in greenschist conditions. Financial Support: FAPESP (98/0738-8).