

CHROMITE TEXTURAL FEATURES OF THE JACURICI VALLEY, BAHIA, NORTHEASTERN OF BRAZIL

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This work focuses on chromite textural features that occur in chromite mineralization-bearing mafic-ultramafic rocks of the Jacurici River Valley Chromian District, located in Northeastern Bahia State. This area presents a great geological-petrological complexity with rocks intensely deformed, metamorphosed and transformed by metassomatic processes. The thickness of the mafic-ultramafic units does not exceed 300 m. The extension is variable, depending on local structure. The Medrado-Ipueira mine, one of the most important in exploration, possesses 7 km. These bodies are usually formed by gabbros, ortho and clinopyroxenites, serpentinites and eventually chromitite layers. The mineralized bodies are usually thick, specially when compared with chromitites of important stratiform complexes, including Campo Formoso. They can reach up to 15 m of thickness, although frequently they vary from 5 to 8 m. Minerals of the spinel group show extensive solid solutions at high temperatures (granulite facies or magmatic temperatures) and fields of significant exsolution with temperature decrease, depending on the composition of the original phase. For the characterization of these phases and relationships it is necessary to know the chemical composition. Petrographic studies distinguish opaque, translucent (several brown tonalities, red) and transparent (different green tonalities) phases. Color variation can be observed in the same grain or in different grains of one same sample. The meaning of color variation (compositional variation?) and the process responsible for that variation (metamorphic, metassomatic, igneous reequilibrium?) is the object of this investigation. Research supported by FAPESP grants 97/00640-5 and 98/00681-6.