Accessory Monazite, Xenotime and Zircon; the Essential REE Carriers in the Dumortierite-Lazulite-Bearing Metaquartzites of the Serra de Macaúbas (Bahia, Brazil).

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The REE contents in monazite, xenotime and zircon from the dumortierite-lazulite-bearing metaquartzites of the Serra de Macaúbas (Bahia, Brazil) were determined by EMP analysis and in the host rocks by ICP-MS analysis. Monazite is enriched in LREE, xenotime and zircon in HREE. Due to their very high REE contents as compared to the matrix, which consists mostly of quartz, accessory monazite and xenotime, and subordinately also zircon, control the REE distribution patterns of the whole rock. Examples for xenotime and monazite dominated WR REE patterns, and for "mixed" patterns which are determined by about equal amounts of xenotime and monazite, can be found. Zircon influences much less the whole rock pattern due to the much lower total REE contents compared to monazite and xenotime.