

Proterozoic-Phanerozoic black limestone in the Gorny Altai Mtn., southern Russia: lithologic characteristics and Pb isotopic age

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We analyzed the lithologic characteristics of the Vendian-Cambrian limestones in the Gorny Altai mountain in southern Russia. These limestones occur in the late Proterozoic to early Paleozoic subduction-accretion complex. They directly lie on the OIB-type basaltic greenstones. The limestones are sparitic and micritic, and exclude any terrigenous clastics. Black limestones enriched with graphite are intercalated with the limestones. The black limestones may indicate an anoxic environment, which may have been related to the event of a biological reorganization across the Proterozoic-Phanerozoic boundary.