



## **Belomorian eclogite province - Archean paleosubduction zone with two types HP-complexes**

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There are two eclogite types in Belomorian eclogite province. They mark the Archean paleosubduction zone at the boundary between Karelia and Kola cratons. Eclogite forming age is about 2.7 Ga. The Salma eclogites represent large mafic bodies within tonalite-trondjemite-granodiorite (TTG) gneisses in Northern part of eclogite province. Peak of the Salma eclogite metamorphism is 14 kb and 730°C. The Salma eclogites have N-MORB composition, and their protolith is ophiolites. Acceptable scenario for the Salma eclogite's formation is oceanic subduction. Other type of eclogite displayed in undeformed and deformed mafic multiple age dikes in South-eastern part of Belomorian eclogite province in Gridino area. Geochemical and petrology investigations the Gridino eclogite displayed the united step-by-step metamorphic P-T trend for all mafic rocks from eclogite (peak pressure 15-16 kb) to amphibolite (7,9-9,6 kb, 530-700°C) through HP-granulite (13,9-14,8 kb, 800-810°C). Acceptable scenario for the Gridino eclogite's formation is continental subduction. We suppose there are evidences of Archean age subduction/collision inversion of geodynamics regime in Belomorian paleosubduction zone.