ECLOGITE-BEARING UHP COMPLEXES IN TIEN SHAN (KYRGYZSTAN)

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There were determined UHP minerals in eclogite-bearing rocks in the western part of the Kyrgyz Ridge and the Atbashy Ridge. In the western part of the Kyrgyz Ridge quartz pseudomorph after coesite in garnet porphyroblasts of the garnet+chloritoid+talc schist was found. Stability of chloritoid and coesite indicates the pressure not lower than 25 kbar and temperature not higher 600o C. In the same rocks was also determined phengite with f.u. Si=3,40-3,43. In phengite from carbonate-silicate rocks f.u. Si comes up to 3.58, corresponding to the pressure of 40 kbar. Phengite with f.u. Si=3,55-3,57 was determined in eclogites corresponding to the pressure exceeding 35 kbar and temperature of 600-800 C.In the Atbashy Ridge quartz pseudomorph after coesite in garnet of eclogite were found as well as in omphacite. It was determined two types of lamels. The first type is represented by intergrowth of two varieties of omphacite with different compositions. According to experiments such kind of lamel type could be formed as a result of disintegration during cooling of the third pyroxene at 725o C. The second lamel type is represented by the alternation of albite and talc bands. It was apparently formed due to the transformation of jadeite+talc+coesite into albite+talc+quartz. The first paragenesis at 725o C is stable for pressure of 35 kbar or higher.The bulk chemical composition of garnet- chloritoid-talk shists corresponds to the laterites, which apparently deposited originaly on the continental crust. Therefore rhey can serve as petrological indicators of continental crust subduction to the depth to 90 km from the Earth surface.