**The pecularityes of magmatic processes in subduction zones**

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The lithospheric slab, which plunges into mantle in the subduction zone is cold and processes of partial and fractional melting is developed in mantle wedge is of MORB one.

The high-alumina basalts (HAB) are formed by the way of fractional crystallization of the primary olivine basalt which consists about 1,00 of $H_2O$. The density of this melt is equial to of An90-An70 and crystals of plagioclase accumulates in the melt, which composition changes from olivine basalt to HAB.

The rhyolitic melts is formed by the way of metasomatic transformation of basalts and partial melting of metasomatic rocks. It is experimentally established that the interaction of basalt with (NaCl + KCl + HCl) - $H_2O$ solution at 700-800°C leads to the enriching of basalt by $Na_2O$, $K_2O$ and $SiO_2$ and forming of rhiolitic melts. This melt is segregated in form of sphreritic drops and it is able to go out from the melting zone at the very low degree of melting and is accumulated in the intermediate magmatic chamber or in double-layer basalt-rhiolitic magmatic chambers.

There are three possible way of forming of andesites in the subduction zones: 1 - Fractional crystallization of HAB, 2 - Fractional melting of basalt after their metasomatic transformation by the chloride solutions, 3 - Mixing of basaltic and rhyolitic melts in double-layered magmatic chambers. All three ways andesite genesis are realised in subducting zones.

When lithosperic slab achivs the deep 150 km the temperature of its upper part becomes 800°C and granitic melt is formed from pelagic sediments. This melt moves as a diapirs or drops through the mantle wedge where temperature is more than 1300°C. The granitic melt reacts with mantle substance and forms the melt of K-Na subalkali basalts, or alkali nefeline basalts.