The terms of localization and typomorphic caracteristics of the quartz raw materials of the Prepolar Ural deposits

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Quartz mineralization for industry is the metamorphogenic-hydrotermal formations which are the veins of the coarse quartz having the irregular development of crystal. Dynamo-metamorphism coarse-graind vein quartz of the high transparency in non-crystal substances has the special significance.

Mainly the quartz raw materials are located into the Lyapinsky anticlinorium of the second order involved in the Central-Ural uplift. It's characterized by the riftogenic subtupe of the continental crast formed by processing margin of the Russian platform. Within the anticlinorium the various schists of the metapelitic series (+quartzites, marbles) of R_{1-3}-age and around them O_{1-2} are spread. The core is the gneissic-metamorphic dome. Here metamorphism reached the amphibolitic facies. Predominant bulk of veins is placed in its west periphery where the metamorphism parameters were less: T=320-480° C and P=2-4,5 kbar.

Formation of the quartz objects is caused by synergetic of many geological factors. Quartz bearing varies from 0,001 to 0,n% upon area in about 150 show and deposits. Mineralization scope in the depth was fixed to be 120-350m. The vein maximum dimensions are (150-160)x(40-80)x(20-30)m. Usually the volumes of crystal's nest are less than $30m^3$ (the unique one are to 200 and $600m^3$).

The low quantity of impurity (within 20-70ppm), the content of Ti and Li - 1ppm and the great variations of the gas-content are the specific features of the quartz raw materials. To technological properties the rock crystal is the remarkable material for glass melting. Many types of the vein quartz after deep improved are compared to high grades of "IOTA-quartz".