

Systematics of non-metallic mineral resources according to their evaluation and application.

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Systematics necessity of non-metallic mineral resources is defined not only by quantitative variety of kinds (about 150), but also qualitative characteristics according to which they may be grouped for evaluation of the ways of application.

Three groups are distinguished among industrials minerals. In the first their value is defined by physical properties, during production they do not need chemical-technological change. The main factor of resources evaluation of there minerals is based upon prediction of favourable conditions for crystal growth (piezooptical raw material, asbestos, mica). In the second group minerals value is defined by physical and chemical properties, they are used in production without substantial chemical-technological change. The main factor of resources evaluation is the prediction of favourable complexes and formations (talk, magnesite, feldspars, olivine, vollastonite, barite, graphite, et. al). The third group consists of minerals the value of wich is defined by chemical composition, durring manufacturing they need deep chemical-technological change. The main factor of resources evaluation is the prediction of geochemical conditions (apatit, phosphorites, sulfur, fluorite, salts). Certain minerals according to the way of application may be related to different groups (fluorite).

Industrial rocks are subdivided into groups evaluated for application according to physical properties (different rocks for ballast, facing, as fillers and swellings) and evaluated according to physical and chemical properties (siliceous, carbonate at al.) Specially distinguished in the second group are clays (refractory, modeling, ceramic, sorbent). As some other rocks (serpentinites) in the nearest future they may be the raw material of deep chemical-technological change for production of various valuable products.