

NEW SURFACE PROPERTIES OF MINERALS OPEN NEW PROSPECTS.

Kotova O. B.

The results of the investigations of processes, which are going in the gas-mineral systems suggests the existing of close connection between molecular and electronic processes in the subsurface area of mineral particles, for example, absorption processes have an influence on physic-chemical qualities of particle surface. In the case of that with finedisperse particles this influence is going up to all volume of mineral. This connection gives an opportunity to find out those new qualities of minerals that appear in the time of activation of surface in result of adsorption (desorption) and photosorbption of simple molecules of gas phase (oxygen, hydrogen, methane, oxide of carbon etc.) There was an opportunity observe, research and use new qualities of minerals: adsorboelectric, adsorbomagnetic, adsorboluminiscent's, adsobooptical. Adsorboelectric qualities appear by the foundation of the surface uncompensated charge Q_s . By the adsorbption processes we can get Q_sO , Q_sO and $Q_s=O$ on the surface of mineral particles. Magnetic qualities of the volume of mineral particles differ from surface qualities and have a complicated character of correlation. It is possible that adsorbption processes can give the color change of minerals. A photoinduction adsorboluminescence was observed. New technologies of enrichment of finedispersed mineral particles and their identification are based on the pointed adsorbophysical qualities. The results of investigation of the gas-mineral system provides us with a new information about the life origin of the Earth, for creating new constructional materials.