

**THE INFLUENCE OF SYMMETRY ON PHYSICAL PROPERTIES OF THE RARE EARTH DOUBLE TUNGSTATE.**

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Results of structural and magnetic investigations of the rare earth double tungstate,  $ARe(WO_4)_2$ , where A – alkali metal and Re- trivalent rare earth ion (Dy, Er, Ho, Nd, Lu, Yb) are presented. It crystallises in the monoclinic crystal structure, with the  $C2/c$  space group. A strong anisotropy of physics properties was found. Two model for description behaviour of the susceptibility for these crystals were constructed. Based on these models we found magnetic characteristics: Curie constant and paramagnetic temperature. The value of g-factor was found from EPR spectra. The specific heat for rare earth double tungstate was measured without magnetic field and with magnetic field. In low temperature region the measured specific heat is a sum of magnetic, Schottky and lattice contributions. The alkali-rare earth double tungstates belong to the optical class of biaxial crystals. The trichroism (pleochroism) of  $ARe(WO_4)_2$  was found experimentally, that means the optical absorption is characterized by three different, independent spectra attributed to three optical axes (so called main optical spectra).