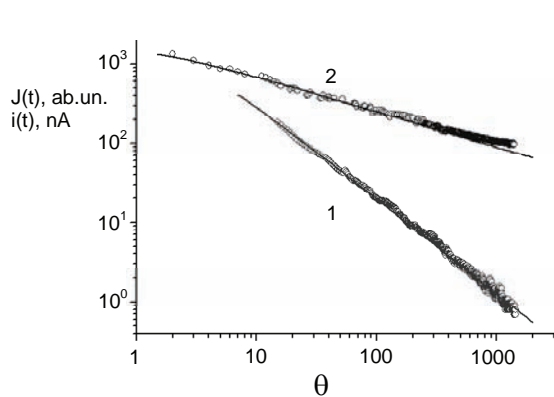


## PHOSPHORESCENCE AND RELAXATION OF CONDUCTIVITY IN ZnSe AFTER PHOTO- AND X-RAY EXCITATION

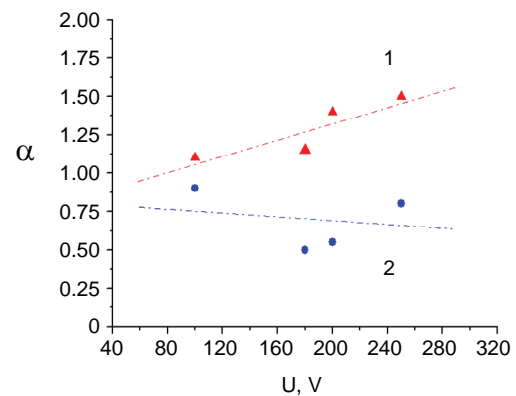
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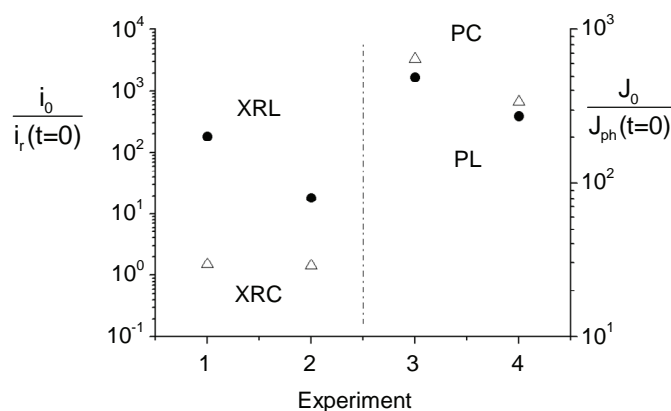
The results of simultaneous experimental researches of phosphorescence and relaxation of conductivity are resulted in crystal ZnSe after photo- and x-ray excitation. Kinetics of phosphorescence after photoexcitation of ZnSe finds explanation within the framework of kinetic theory of luminescence. But, after x-ray excitation of samples kinetics of phosphorescence and the relaxation of current can change. Observed, that index of hyperbola of relaxation of current more then index of hyperbola of phosphorescence. This experimental fact can not be explained within the framework of classic kinetic theory of photoluminescence and photoconductivity. The analysis of jumps is also conducted and intensity of luminescence and size of conductivity after stopping irradiations shows about the determining influencing of character of excitation.



**Figure 1.** Curves relaxation of conductivity (1) and decay phosphorescence (2) after x-ray excitation



**Figure 2.** Dependence of exponent of hyperbole of decay of relaxation of conductivity (1) and phosphorescence (2) on the size of voltage on the electrodes of crystal.



**Figure 3.** Jumps in luminescence and conductivity at photo- and x-ray excitation of ZnSe in different experiments.