

MANIFESTATION OF PHASE  
TRANSITIONS IN THE ABSORPTION  
SPECTRA OF BIS-(n-PROPYLAMMONIUM)  
TETRACHLOROCUPRATE CRYSTALS

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S u m m a r y

Investigations of the absorption spectra of bis-(n-propylammonium) tetrachlorocuprate  $(C_3H_7NH_3)_2CuCl_4$  crystal in the energy region of 1.45 - 2.5 eV are carried out. The absorption bands, which correspond to the internal transitions of a  $Cu^{2+}$  ion, are identified. The analysis of temperature evolution of the low energy edge related to the charge transfer from  $3d^9$  to  $3d^8$   $Cu^{2+}$  band confirms the presence of phase transitions at  $T_c = 379$  K,  $T^* = 387$  K, and  $T_i = 410$  K. The thermo-optical memory effect in the incommensurate phase of this crystal is investigated.