

## On the structural phase transitions in $[\eta\text{-C}_4\text{H}_9\text{NH}_3]_2[\text{SbBr}_5]$ : thermal, dielectric and infrared studies.

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Differential scanning calorimetry and linear thermal expansion studies reveal seven phase transitions in  $[\eta\text{-C}_4\text{H}_9\text{NH}_3]_2[\text{SbBr}_5]$  crystal. The phase transitions at 261, 280 and 292 K are accompanied by distinct dielectric anomalies. The dielectric relaxation processes were disclosed over the low temperature phases (VI, VII) and over the phase (III). The infrared spectra of powdered sample of  $[\eta\text{-C}_4\text{H}_9\text{NH}_3]_2[\text{SbBr}_5]$  in Nujol were measured in the region of the internal vibration of the n-butylammonium cation ( $4000\text{-}400\text{ cm}^{-1}$ ) in the temperature range between 26 and 320 K. The temperature changes wavenumbers and width of most of the modes of the n-butylammonium cations were analysed.

### Słowa kluczowe

Bromoantimonates(III), Phase transition, Differential scanning calorimetry, Dielectric, IR

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