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Vibrational spectra and structure of antimony (III) trialkoxides

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Abstract

1. According to their vibrational spectra, antimony trialkoxides of formula Sb(OR)3 with R=CH3, C2H5, n-C3H7, and i-C4H9 are associated; no signs of association are observed for the compounds with R=i-C3H7 and t-C4H9. 2. The molecules of antimony tri-t-butoxide in the liquid state at 20°C exist in the form of rotational isomers having C1 (Cs) and C3 (C3v) symmetry, with the C1 (Cs) conformer predominating. Upon freezing, the C3 (C3v) conformer remains in the crystal.

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