

SHORT COMMUNICATION

On the Deformation Modes of the BiF_6^- Anion

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In a recent paper [1] it was suggested that, based on the observation of a combination band in the infrared spectrum of CsBiF_6 , the previous [2] assignment for ν_4 (F_{1u}) of BiF_6^- should be revised. To unambiguously settle this question, the infrared spectrum of powdered CsBiF_6 between polyethylene windows was recorded. The only intense absorption, observed between 200 and 400 cm^{-1} , occurred at 210 cm^{-1} with a shoulder at about 225 cm^{-1} . These frequency values are in excellent agreement with those previously found for $\text{ClF}_2\text{O}^+\text{BiF}_6^-$ [2]. The agreement between the various frequencies reported [1,2] for ν_5 (F_{2g}) of BiF_6^- is good and requires no further discussion.

1 K. O. Christe, W. W. Wilson, and C. J. Schack, *J. Fluorine Chem.*, **11**, 71 (1978).

2 R. Bougon, T. Bui Huy, A. Cadet, P. Charpin, and R. Rousson, *Inorg. Chem.*, **13**, 690 (1974).