ABSORPTION SPECTRUM AND DISSOCIATION ENERGY OF BROMINE

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- ABSTRACT:

  The aborption spectrum of bromine is obtained and analyzed to determine the energy of dissociation.

- TEXT REFERENCE:

  Sime, Rodney J., "Physical Chemistry - Methods, Techniques and Experiments," Saunders Pub., Philadelphia, PA, 1990. p. 660-668.

- OTHER REFERENCES:
- GENERAL DESCRIPTION AND THEORY:

  When the electronic absorption spectrum of a halogen is recorded, the vibrational changes appear superimposed on the spectra. The spacings between the vibrational levels can be obtained and the Birge-Sponer extrapolation used to obtain dissociate energy values. The spectrum of the liquid bromine is easily obtained and with a little warming the spectrum of iodine can also be obtained.

- EQUIPMENT:

  UV-visible spectrometer, cells.

- CHEMICALS:

  bromine and/or iodine.

- LABORATORY PROCEDURE:

  Follow the procedure described by Sime.

- CALCULATIONS:

  The calculations are those described by Sime.

- LITERATURE VALUES: