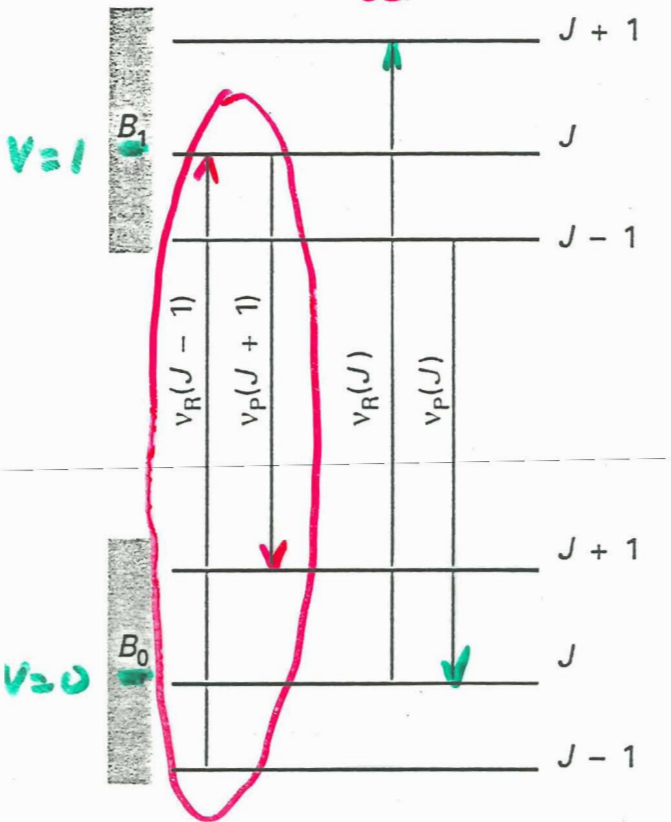


Combinational Difference

Vibrational Rotational Energy Levels



$$\bar{\nu}_R(J-1) - \bar{\nu}_P(J+1) = 4B_0 \left(J + \frac{1}{2}\right)$$

$$\bar{\nu}_R(J) - \bar{\nu}_P(J) = 4B_1 \left(J + \frac{1}{2}\right)$$

16.42 The method of combination differences makes use of the fact that some transitions share a common level.