

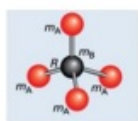


UNIVERSIDADE  
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Faculdade de Ciências  
Departamento de Física

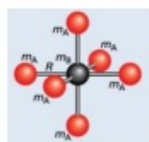
AULAS PRÁTICAS DE ESPECTROSCOPIA

Tabela suplementar



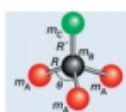
$$I = \frac{8}{3} m_A R^2$$

(Exemplos: CH<sub>4</sub>, SiH<sub>4</sub>)



$$I = 4 m_A R^2$$

(Exemplo: SF<sub>6</sub>)

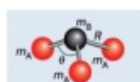


$$I_{||} = 2 m_A (1 - \cos \theta) R^2$$

$$I_{\perp} = m_A (1 - \cos \theta) R^2 + \frac{m_A}{m_A + m_B} (m_B + m_C) (1 - 2 \cos \theta) R^2$$

$$+ \frac{m_C}{m_A + m_B} \left[ (3 m_A + m_B) R' + 6 m_A R \sqrt{\frac{1}{3} (1 + 2 \cos \theta)} \right] R'$$

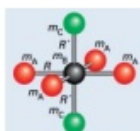
(Exemplos: CH<sub>3</sub>Cl, CH<sub>3</sub>CN)



$$I_{||} = 2 m_A (1 - \cos \theta) R^2$$

$$I_{\perp} = m_A (1 - \cos \theta) R^2 + \frac{m_A m_B}{m_A + m_B} (1 + 2 \cos \theta) R^2$$

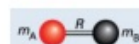
(Exemplo: NH<sub>3</sub>)



$$I_{||} = 4 m_A R^2$$

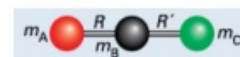
$$I_{\perp} = 2 m_A R^2 + 2 m_C R'^2$$

(Exemplo: trans-SF<sub>4</sub>Cl<sub>2</sub>)



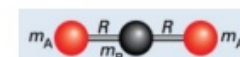
$$I = \mu R^2$$

(Exemplo: HCl, CO)



$$I = m_A R^2 + m_C R'^2 - \frac{(m_A R - m_C R')^2}{m_A + m_B}$$

(Exemplo: OCS)



$$I = 2 m_A R^2$$

(Exemplo: CO<sub>2</sub>)