THEORY OF $r_m^{(2)}$ STRUCTURAL PARAMETERS

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The $r_m^{(2)}$ method described in the previous paper is discussed on the assumption that the isotopic changes in ϵ_0 are adequately represented by the equation $\Delta\epsilon_0 = \sum_i (\partial\epsilon_0/\partial m_i)\Delta m_i$. A formula is calculated for $\partial\epsilon_0/\partial m_i$ in terms of the basic potential constants and coupling parameters of the molecule. Use of this formula then gives an approximate expression for the $[r_m^{(2)} - r_e]$ differences in the structural parameters. Numerical tests of this expression are in progress.