# CALCULATION OF VIBRATIONAL ENERGY LEVELS: VPT2 VS. A VARIATIONAL APPROACH

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For several potentials a detailed comparison of vibrational energy levels obtained via variational calculations employing the complete vibrational Hamiltonian[a] and second-order vibrational perturbation theory (VPT2) is carried out.

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[a] J. K. G. Watson, *Mol. Phys.,* 15, 479 (1968):19, 465 (1970).