

CAN ONE DETERMINE THE ELECTRIC DIPOLAR MOMENT OF $\text{KrH}^+ X^1\Sigma^+$ FROM ONLY FREQUENCY DATA OF PURE ROTATIONAL AND VIBRATION-ROTATIONAL SPECTRA?

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In agreement with Molski's derivation^a of an insignificant value $t_0^{Kr} = -0.0146 \pm 0.0335$ of a parameter related to the rotational g factor, our objective fit of 352 appraised measurements of frequencies of pure rotational transitions and wave numbers of vibration-rotational transitions of KrH^+ in various isotopic species $^{78,80,82,83,84,86}\text{Kr}^{1,2}\text{H}^+$ indicates that one might estimate^b a value of the rotational g factor if adiabatic corrections be negligible, but that no corresponding estimate of the permanent electric dipolar moment is practicable. The application of computational spectrometry^c to the prediction of an accurate wave number of the pure fundamental vibrational transition of LiH is also discussed.

^aM. Molski, *Molecular Physics*, **100**, 3545 - 3552 (2002)

^bJ. F. Ogilvie and S. C. Liao, *Chemical Physics Letters*, **226**, 281 - 288 (1994)

^cJ. F. Ogilvie and J. Oddershede, *Advances in Quantum Chemistry*, **48**, 253 - 317 (2005)