

QED EFFECTS IN H₂

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The electron self-interaction and the vacuum polarization, the two effects predicted by Quantum Electrodynamics (QED), have been accurately calculated for H₂ and its isotopomers^a. The resulting theoretical predictions will be compared with state of the art measurements of dissociation energies, vibrational and rotational transitions. New developments for the calculation of higher order QED effects will be presented.

^aJ. Komasa, K. Piszczatowski, G. Łach, M. Przybytek, B. Jeziorski, and K. Pachucki, *JCTC* **7**, 3105 (2011)