

# **A CRITICAL APPRAISAL OF THE CURRENT SPECTROSCOPIC DATABASES USED IN ATMOSPHERIC AND OTHER RADIATIVE TRANSFER APPLICATIONS**

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**ABSTRACT.** The currently available quantitative spectroscopic molecular databases, known popularly by their acronyms *HITRAN* and *GEISA*, are appraised in the context of their widespread use in atmospheric and other radiative transfer applications. The constantly emerging need for highly accurate data on individual spectral lines of many important atmospheric greenhouse gases as well as of active radiating molecular species of combustion systems and the ever increasing demand for precision in these applications make the present review a timely one.