CDMS AND JPL MOLECULAR SPECTROSCOPY CATALOGUES IN A COMMON INFRASTRUCTURE: VAMDC

S. SCHLEMMER, C. P. ENDRES, *I. Physikalisches Institut, Universität zu Köln, 50937 Köln, Germany*; B.J. DROUIN, S. YU, J.C. PEARSON, *Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, CA 91109* ; H. S. P. MÜLLER, P. SCHILKE, J. STUTZKI, *I. Physikalisches Institut, Universität zu Köln, 50937 Köln, Germany*.

The virtual atomic and molecular data centre (VAMDC, http://www.vamdc.org/) is a collection of databases with a common data model. It combines molecular spectroscopy databases; like the Cologne Database for Molecular Spectroscopy (CDMS), the Jet Propulsion Laboratory microwave, millimeter and submillimeter spectral line catalogue (JPL) and the HITRAN databases, with other databases, *e.g.*, on molecular collisions (BASECOL, KIDA). VAMDC is open to include other databases adopting the same data structure and access protocols to the data. Due to the common data model all data can be accessed through one portal. The individual databases are located on a system of distributed servers which all can handle a common query language which enables the combined access to the very different data.

In this presentation requests to CDMS and JPL will be used to explain the basic ideas behind the very powerful VAMDC instrument, its portal and the query possibilities. A new portal to CDMS allows access to all old and new spectroscopic data. In addition CDMS has a number of new features, in particular meaningful quantum numbers, references linked to data points, and improved documentation. In addition, fit files are accessible for download and queries to other databases are possible.

Due to the new format the long anticipated unified spectroscopy database including all relevant information is realized. Together with other groups within the VAMDC consortium we are working on common user tools to simplify the access for new customers and to tailor data requests for users with specified needs, e.g. HFS information. The development of CDMS and JPL within the VAMDC infrastructure will allow a much more sophisticated analysis of complex observational data which, *e.g.*, come from the ALMA telescope.