BASS2000 - VAMDC

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Accessing VAMDC from the BASS2000 Solar Portal

BASS2000 provides access to a wide range of the Solar spectrum, from 67 nm to 5 400 nm. This spectrum is obtained from Curdt et al. (2001) for the UV part using SOHO/SUMER data; from Delbouille et al (1972) for the visible part, using Kitt Peak National Observatory observations; from Delbouille et al. (1981) for the infrared part, also based on Kitt Peak observations.

The visible part of the spectrum is very much used both for preparing observations and to process them. Spectro-polarimeters take full advantage of the detailed knowledge of atomic data concerning the observed lines in order to be able to calculate local magnetic field.

Therefore, Solar spectrum has been connected to VAMDC in order to provide directly useful information to the user. This helps for data processing, but also in order to prepare observations, for instance tagging atmospheric molecular lines, such as water, that may serve for wavelength calibration.

References:

* Curdt, W.; Brekke, P.; Feldman, U.; Wilhelm, K.; Dwivedi, B. N.; Schühle, U.; Lemaire, P., « The SUMER

spectral atlas of solar-disk features », Astron. Astrophys. 375, p. 591, 2001

* Delbouille L., Neven L., Roland G., "Photometric atlas of the Solar spectrum from ⬚ 3000 to ⬚ 10000", publication de l'Observatoire de Liège, 1972

* Delbouille L., Roland G., Brault, Testerman, "Photometric atlas of the Solar spectrum from 1850 to 10,000 cm-1", publication de l'Observatoire de Liège, 1981

Support to access VAMDC Databases

You can implement protocols that VAMDC has designed: http://www.vamdc.eu/standards.

You might want to save time and to use our libraries in Java or other languages: http://www.vamdc.eu/software.

You may need some tutorials: see http://tutorial.vamdc.org.

You may need some help: send a mail to support@vamdc.eu.

You may want to exchange: http://forum.vamdc.org