

**H<sub>2</sub>O SELF-CONTINUUM MEASUREMENTS IN THE  
SPECTRAL RANGE 700 - 2000 CM<sup>-1</sup> (V<sub>2</sub> + WINDOW)**

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A Bruker IFS 125 HR Fourier transform interferometer in combination with a multireflection cell was used to measure pure water transmission spectra in the spectral range 700 - 2000 cm<sup>-1</sup>. Spectra with absorption path lengths between 14 and 161 m, sample gas pressures from 0.003 to 20 mbar and temperatures between 278 and 350 K were recorded.

The recorded spectra were corrected for detector non-linearity and thermal self-radiation and the deviations from an ideal instrumental line shape were taken into account. A micro-window-based multispectrum-fitting approach was used, applying a quadratic speed-dependent Voigt model (+ line mixing) to adjust spectral line parameters.

Continuum information was extracted from baselines, which were fitted simultaneously with monomer lines during the multispectrum fits. Continua were then obtained from the baselines by a combined fit of all measurements containing significant continuum information. The self-continuum for room temperature was derived for the entire spectral range covered and is compared to measurements conducted by other groups.

In-band continua were determined for different temperatures and the contribution of bound dimer was investigated.