

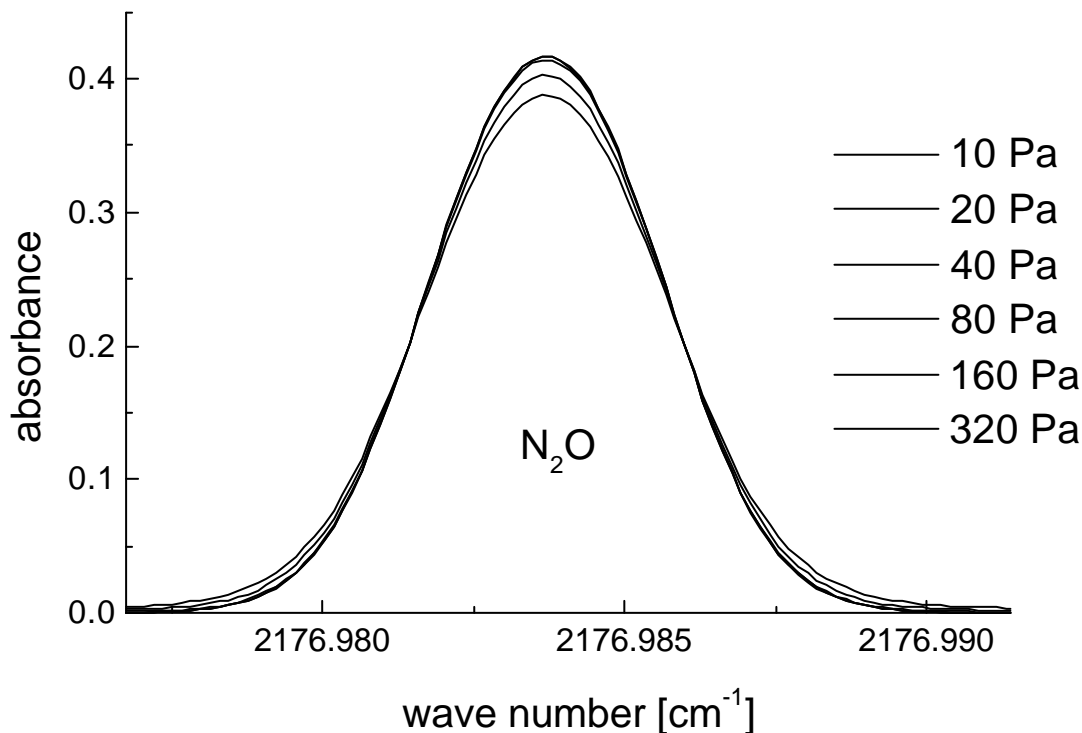
## A recommendation concerning standard cells

There have been performed comparisons of NDSC instruments by using the same set of gas cells with each instrument. This section is appended to the description of LINEFIT given today, not only to give an example of use, but to encourage further investigations of this kind.

**Periodic circulation of suitable standard cells between the NDSC stations is an enticing possibility to ensure continuous long term stability of ILS and deduced gas columns for each station.**

### What is the appropriate cell pressure?

Example: Effect of pressure broadening on  $\text{N}_2\text{O}$  signature at  $2177 \text{ cm}^{-1}$  (air broadened half width HWHM is  $0.0695 \text{ cm}^{-1} / 1 \text{ atm}$ )



## A recommendation concerning standard cells

Note: Amplitude of the Fourier Transform of the irradiated spectrum is the usable signal for modulation retrieval. Any uncertainty concerning this amplitude enters directly into the deduced modulation. Therefore, work in the low pressure regime (**pressure below 20 Pa = 0.2 mbar**) and monitor the pressure in the cell.

