



SUPPLEMENTARY FIGURE 1.

ATR spectra for IDDP-1_2 glass with variable aperture size. As the aperture increases, the signal to noise increases. Each spectrum represents 256 scans. No atmospheric correction was applied; in this case the 25 μm aperture spectrum shows the effect of slightly higher atmospheric CO₂ in the reference spectrum compared with the sample. Measured peak heights at 3450 cm⁻¹ are nearly identical, showing that quantification is not affected by the choice of aperture. Aperture should be chosen to optimize signal while allowing sufficient spatial resolution to assure analysis of homogeneous sample surface.