



Supplementary Fig 1. A plot of S/N for the globar vs the SR source as a function of aperture size for 380 scans (data collection time \sim 1 minute, scanner velocity 80 kHz and optical filter $<4000\text{ cm}^{-1}$.) obtained on the MIRIAM Beamline at Diamond Light Source. The S/N was calculated directly in OPUS and it is the $\text{RootMeanSquare}/\text{signal}$ of the Transmission line in between 2400 and 2800 cm^{-1} (where no major atmospheric bands are present).