



Figure S1: (a) INS spectra of talc ($\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$) in the region $2500\text{--}4000\text{cm}^{-1}$ for three different masses of talc: (i) 494 mg (ii) 848 mg and (iii) 1840 mg. (b) A plot of integrated band intensity of the $\nu(\text{O-H})$ mode of talc as a function of the number of hydrogen atoms for a given mass. The straight line represents a linear least squares fit to the data.