

Supplementary data

Influence of Cosolvents, Self-Crowding, Temperature and Pressure on the Sub-Nanosecond Dynamics and Folding Stability of Lysozyme

S. R. Al-Ayoubi,^a P.H. Schummel,^b M. Golub,^{b,c} J. Peters,^{b,d} and R. Winter^a

^a Physical Chemistry I – Biophysical Chemistry, Department of Chemistry and Chemical Biology, TU Dortmund University, Otto-Hahn-Str. 4a, 44227 Dortmund, Germany.

^b Université Grenoble Alpes, IBS, 71 avenue des Martyrs, CS 10090, 38044 Grenoble, France

^c Institut Laue-Langevin, 71 avenue des Martyrs, CS 20156, 38042 CEDEX 9 Grenoble, France

^d Université Grenoble Alpes, LiPhy, 140 rue de la physique, 38402 Saint Martin d'Hères, France

Additional Figures

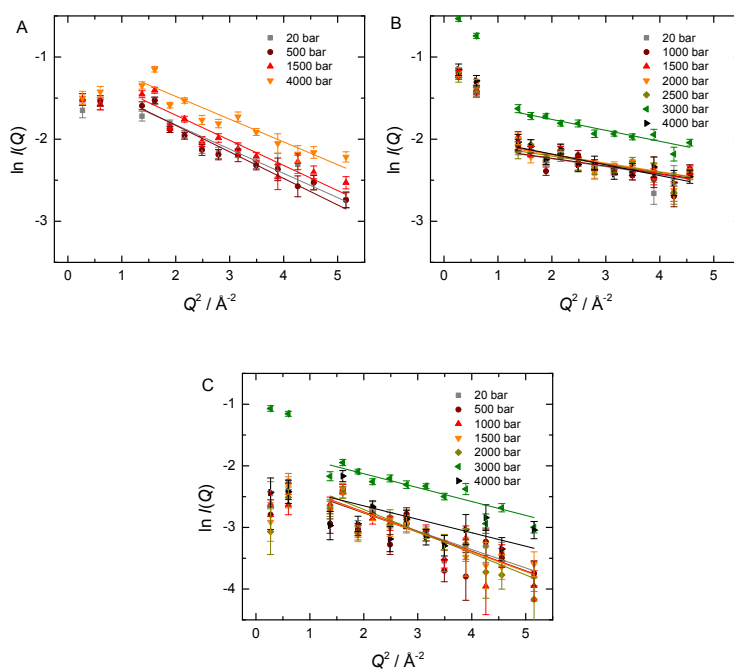


Fig. S1 EINS data shown as plots of $\ln(I(Q))$ vs. Q^2 for a 80 mg mL⁻¹ lysozyme solution in the presence of 2 M urea (A), and 2 M urea + 1 M TMAO (B) and for a 160 mg mL⁻¹ lysozyme solution in the presence of 2 M urea (C). Solid lines represent the Q -range used to determine the MSD, according to Equation 3.

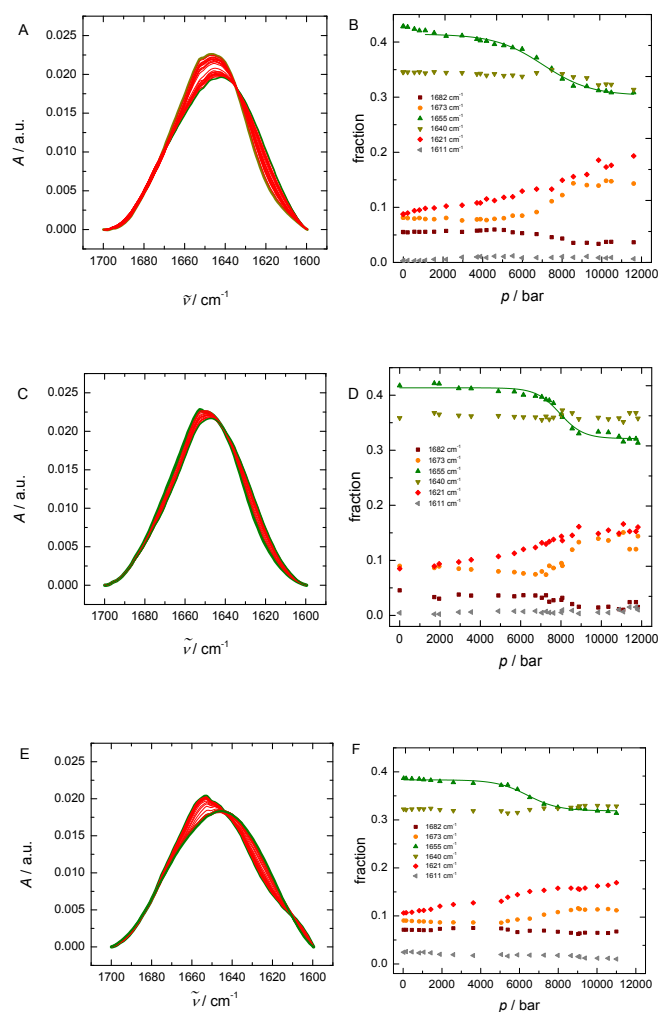


Fig S2 Pressure dependence of the normalized amide I' infrared band and the fraction of secondary structure elements of 80 mg mL⁻¹ lysozyme (A,B), 80 mg mL⁻¹ lysozyme + 2 M TMAO (C,D), and 80 mg mL⁻¹ lysozyme + 2 M urea (E,F). All measurements were carried out at room temperature ($T = 25$ °C).

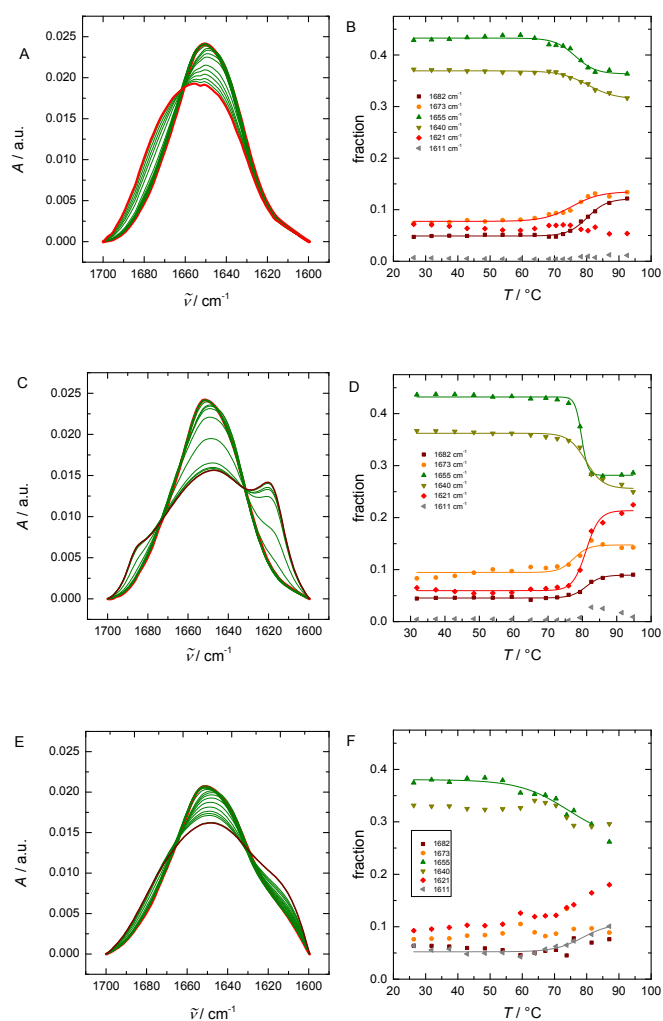


Fig S3 Temperature dependence of the normalized amide I' band and of the fraction of secondary structure elements of 80 mg mL⁻¹ lysozyme (A,B), 80 mg mL⁻¹ lysozyme + 2 M TMAO (C,D), and 80 mg mL⁻¹ lysozyme + 2 M Urea (E,F). ($p = 1$ bar).