

Surface tension γ of the solution was measured for various concentrations using the pendant drop method [1], as presented in Fig. 1. Each point and error bar correspond to the mean and standard deviation over ten measurements.

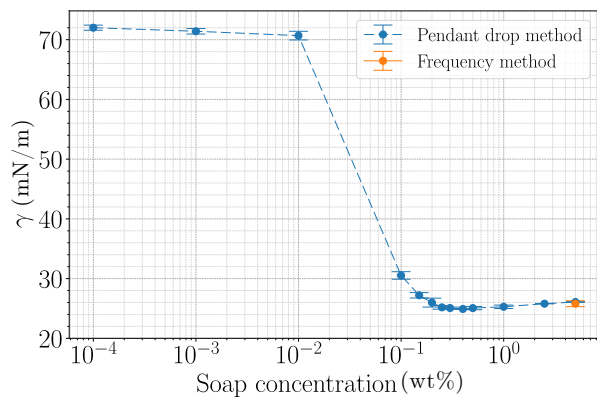


FIG. 1. Surface tension as a function of the soap concentration of the solution using the pendant drop method, in blue. The orange point corresponds to the surface tension of the 5 wt.% solution without glycerol, measured (five times) using the oscillation frequency of the second mode of a falling droplet.

[1] D. S. Ambwani and T. Fort, “Pendant drop technique for measuring liquid boundary tensions,” in *Surface and Colloid Science: Volume 11: Experimental Methods*, edited by

R. J. Good and R. R. Stromberg (Springer US, Boston, MA, 1979) pp. 93–119.