

The Biomimetic System of Oleanolic Acid and Oleic Acid at the Air-Water Interface–Interactions in Terms of Nanotechnology-Based Drug Delivery Systems

Martyna Krajewska *, Katarzyna Dopierała * and Krystyna Prochaska

Institute of Chemical Technology and Engineering, Poznan University of Technology, Berdychowo 4, 60-965 Poznań, Poland

* Correspondence: martyna.m.krajewska@doctorate.put.poznan.pl (M.K.);

katarzyna.dopierala@put.poznan.pl (K.D.); Tel.: +48-61-665-33-42 (M.K.); +48-61-665-37-72 (K.D.)

Supplementary materials

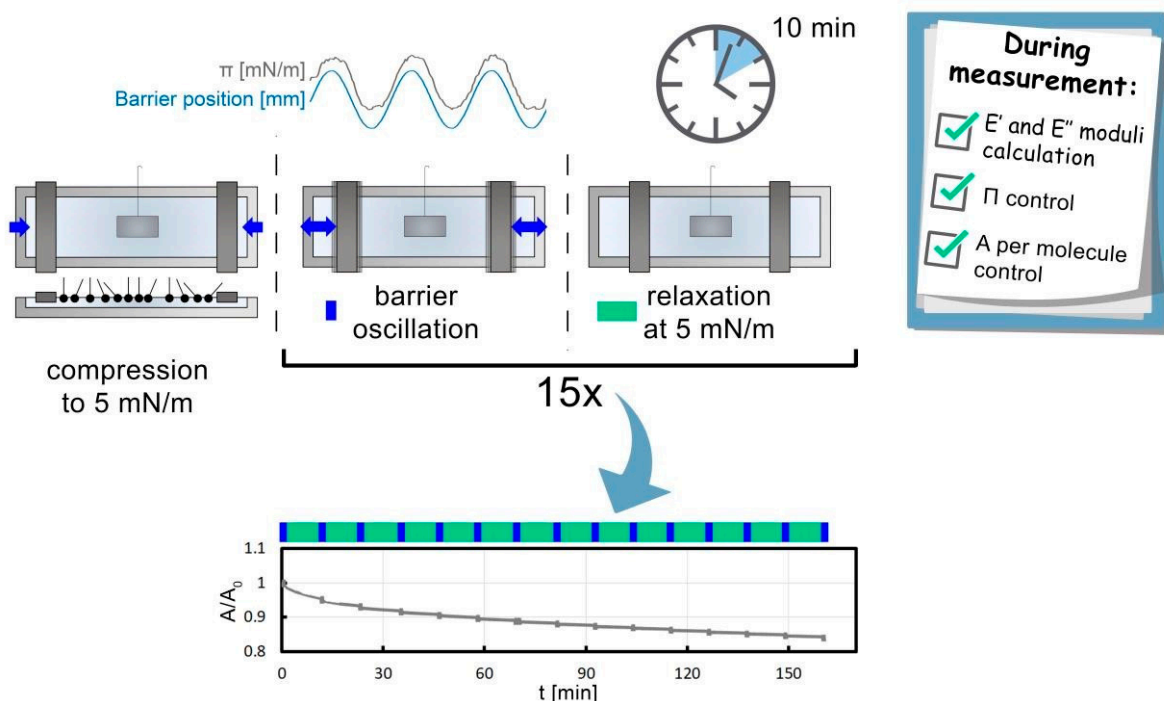


Figure S1. A schematic drawing of the oscillation-relaxation experiment. The experiment aimed to investigate the values of the E' and E'' moduli over time. After monolayer compression to 5 mN/m, the consecutive oscillation cycles were separated by 10-minute intervals during which the surface pressure was kept at 5 mN/m.

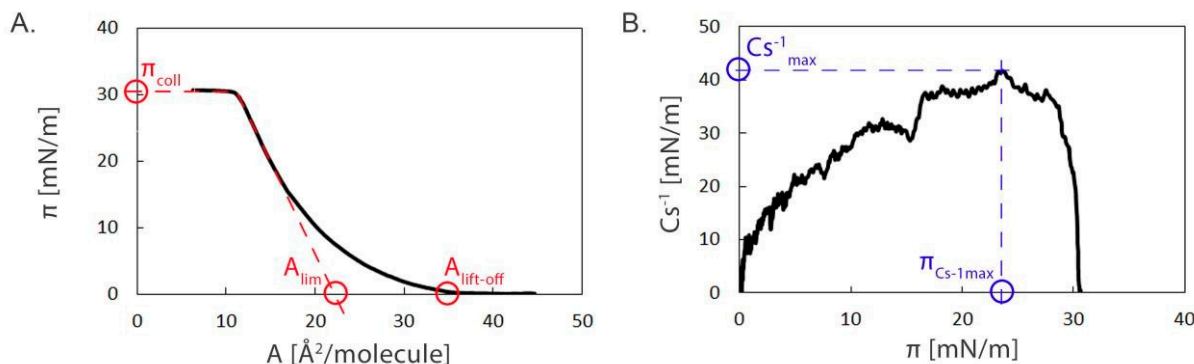


Figure S2. An example graph of the π -A isotherm (A) and the Cs^{-1} vs. π (B) with the characteristic values highlighted.

Table S1. The characteristic values determined based on the $\pi - A$ isotherms and compression moduli of OLA, OA and their mixtures.

<i>System</i>	$A_{\text{lift-off}}$	A_{lim}	π_{coll}	Cs_{max}^{-1}	ΠCs_{max}^{-1}	<i>State</i>
			mN/m	mN/m	mN/m	
			$\text{\AA}^2/\text{molecule}$	$\text{\AA}^2/\text{molecule}$		
OLA	75	53	41	130	29	LC
OLA:OA 5:1	56	43	37	209	28.5	LC
OLA:OA 2:1	43	41	35	232	23.5	LC
OLA:OA 1:1	42	38	29	104	18	LC
OLA:OA 1:2	40	32	29	68	19.5	LE – LC
OLA:OA 1:5	37	25	29	99	25.5	LE – LC
OA	34	23	31	42	23.5	LE

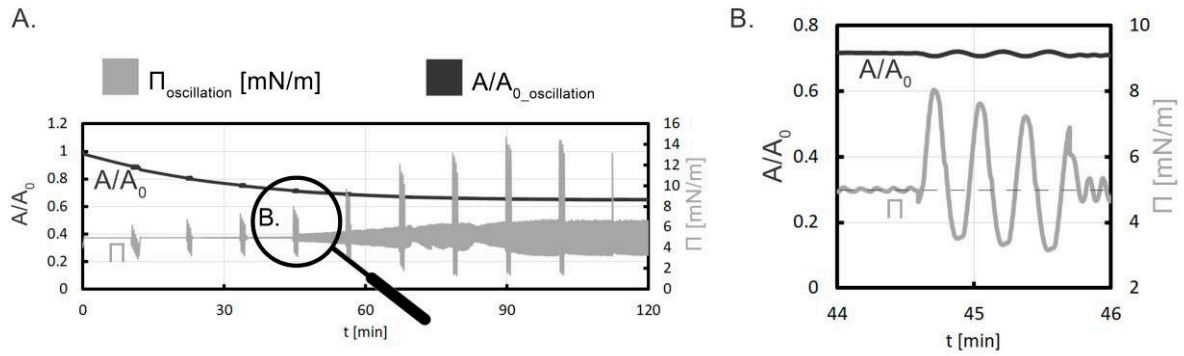


Figure S3. An example graph of the relative area A/A_0 vs. time and the surface pressure vs. time, varying significantly due to the oscillation (A) and close-up emphasizing the peak asymmetry of the surface pressure plot.