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File:
oscillating_membrane_in_1Hz AC_field_of_70mV_4fps_xvid_small.avi

The video shows a bulged Black Lipid Membrane (BLM) made of DPhyPC (1,2-diphytanoyl-sn-glycero-3-phosphocholine) in aqueous buffer solution (preparation details see MS) imaged by a divergent, partially coherent x-ray beam.
The excitation by an AC field (1 Hz frequency, 70 mV amplitude) drives the remaining solvent from the surrounding torus, i.e. the Plateau-Gibbs-border, into the film which then rushes back due to adhesion forces of the two monolayers and the hydrophobic support.
Experimental details: effective propagation distance: z_{eff}=67.83 mm; magnification: M=6.575; effective pixel size: 143 nm; illumination time: t=250 ms.
Video details: frame rate: 4 fps (i.e. real time); resolution: 640 pixel x 480 pixel.