

## Supporting Information

### Spatiotemporal Dynamics of Solvent-Assisted Lipid Bilayer Formation

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**Table S1. Properties of the feeding tubes.** Materials, lengths  $L_i$ , and radii  $R_i$  of the four different tubes used in order to relate the reservoir to the channel.

| Material        | $L_i$ [mm] | $R_i$ [mm] |
|-----------------|------------|------------|
| Stainless steel | 28         | 0.5        |
| Polypropylene   | 70         | 0.25       |
| Silicone        | 55         | 0.8        |
| Polystyrene     | 37         | 1.5        |

### Supplementary Videos

**Video S1. Microscopic visualization of SALB formation in the channel center.**

Time-sequential fluorescence micrographs of complete SALB formation from the initial state of fluorescently labeled lipids dissolved in isopropanol to the Tris buffer exchange step were obtained by visualizing the center of the fluidic channel ( $x = L/2$  and  $z = 0$ ). The real-time duration of captured video recording is approximately 10 minutes. Note that there is a discrete difference in contrast of fluorescence signal during the solvent exchange step. The contrast of the original captured images were adjusted accordingly. The dimensions of each frame are  $136\ \mu\text{m} \times 136\ \mu\text{m}$ , and the scale bar represents  $20\ \mu\text{m}$ .

**Video S2. Microscopic visualization of SALB formation at the channel side wall.**

Complete supported lipid bilayer formation was visualized at the channel side (top-most region of channel; at  $x = L/2$ ,  $y = 0$  and  $z = W/2$ ). The video specifically presents the solvent exchange at the side wall region where a sharp front of bilayer progresses to form a complete bilayer. The real-time duration of video recording is approximately 2 minutes. The dimensions of each frame are  $136\ \mu\text{m} \times 136\ \mu\text{m}$ , and the scale bar represents  $20\ \mu\text{m}$ .