

**TABLE S1.** AFS freeze-substitution procedure for cell suspensions.\*

<b>Step</b>	<b>Temp (°C)</b>	<b>Time (h)</b>	<b>Gradient (°C h<sup>-1</sup>)</b>
<b>T1</b>	-90	48	
<b>S1</b>		6	5
<b>T2</b>	-60	20	
<b>S2</b>		18	5
<b>**Paused</b>	-30	10	
<b>S2 (cont.)</b>		12 (remaining)	5
<b>T3</b>	20	24	

\*Substitution medium at T1-T3 was 1% glutaraldehyde, 0.1% tannic acid and 1% OsO<sub>4</sub> in anhydrous acetone.

\*\*The cycle was paused at -30 °C (6 h into S2) to avoid two programming steps.