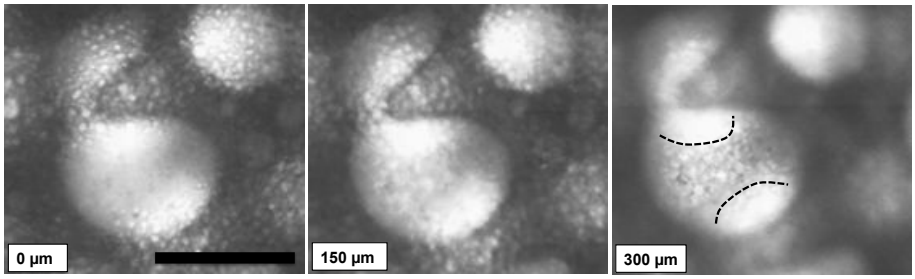
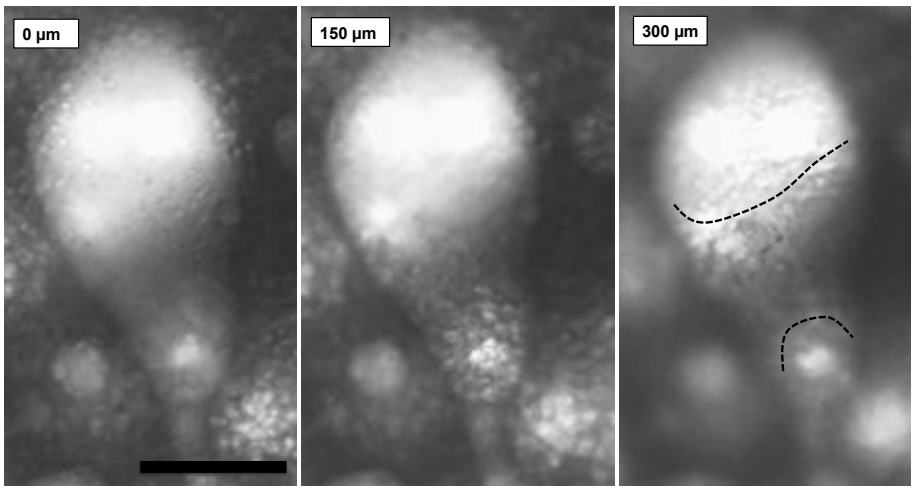
0.1 Supporting Information

0.1.1 Micrographs of co-continuous domains

Fig. S1 shows a high magnification optical micrograph on one of the co-continuous channels of the sample in Fig 2a (in the main text). The micrographs are taken by focusing deeper inside the sample, starting from 0 μm (a point just inside the sample vial), 150 μm and 300 μm deep. The elongated channel shows a saddle-like point which comes into focus at around 300 μm (the dotted lines indicate the contours of the saddle).



(a)



(b)

Figure 4: a) and b): Examples of co-continuous channels in the arrested morphology of fig. 2a in main text. As we focus deeper in the channels by optical microscopy, saddle-like regions come into focus (delimited by the dotted lines) showing the co-continuous nature of the strucutre. Scale bar: 100 μm.

0.1.2 Measurement of K_{int} and G_{int}

The compressional modulus of a water-air interface covered with GO sheets, K_{int}, was measured in ref. [10]. Briefly, GO sheets were deposited on a fresh water-air interface and the surface pressure (π) was measured as a function of interfacial area A. The area at which particles percolate, A_{PT}, was identified as the area at which the surface pressure π started increasing. The interfacial coverage was estimated by fitting the pressure-area (π-A) curves to the Volmer equation. The compressional modulus K_{int} was obtained by differentiating the $\pi - A$ curve by the interfacial area A.

The shear modulus of a water-air interface covered with GO sheets, G_{int} was measured by performing interfacial shear rheology in ref [10] on a water-air interface covered with GO sheets using a stress controlled rheometer.