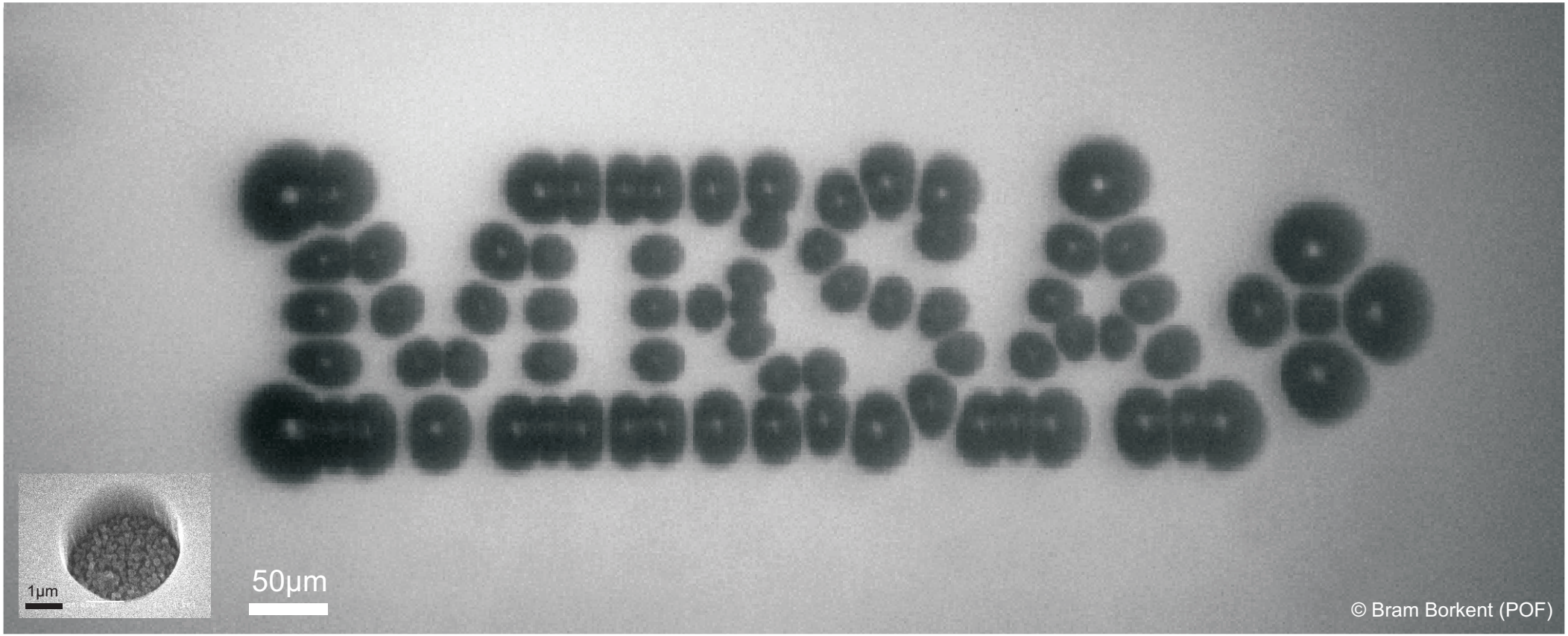

Cavitation from superhydrophobic micropits

When the liquid pressure is reduced sufficiently, cavitation bubbles emerge from cylindrical pits (3 µm) etched in a hydrophilic silicon wafer. The bottom of the pits consists of hundreds of hydrophobic nanosized pillars (see inset), and is therefore superhydrophobic. When the substrate is submerged in water the superhydrophobic pits trap air and act as well-controlled cavitation nuclei.