

Supplementary information

Compositional sorting dynamics in coexisting lipid bilayer phases with variations in e-beam formed curvature pattern

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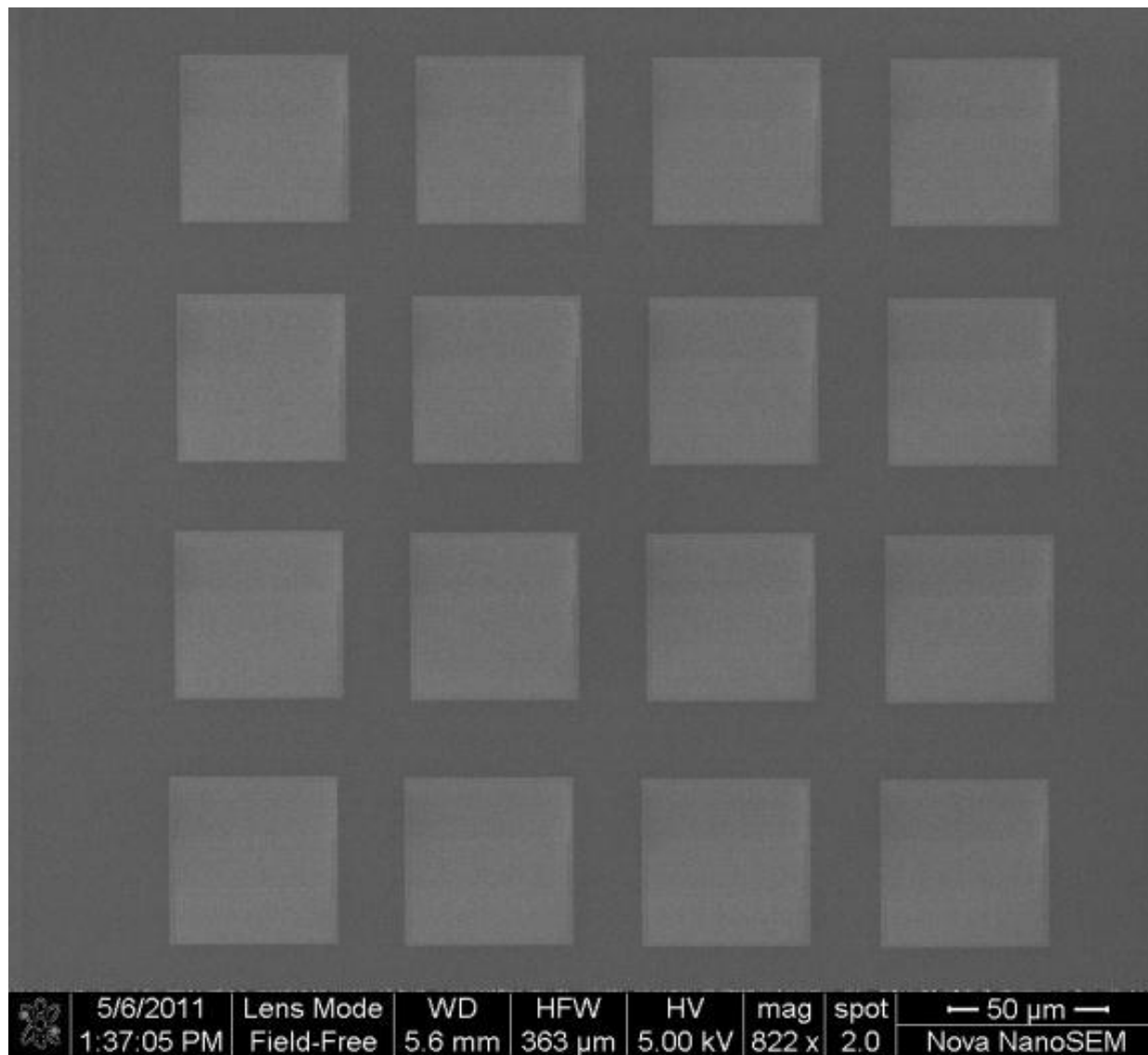


Figure S1. SEM image showing side-by-side arrangement of curvature patterned regions of the substrate produced by e-beam lithography.

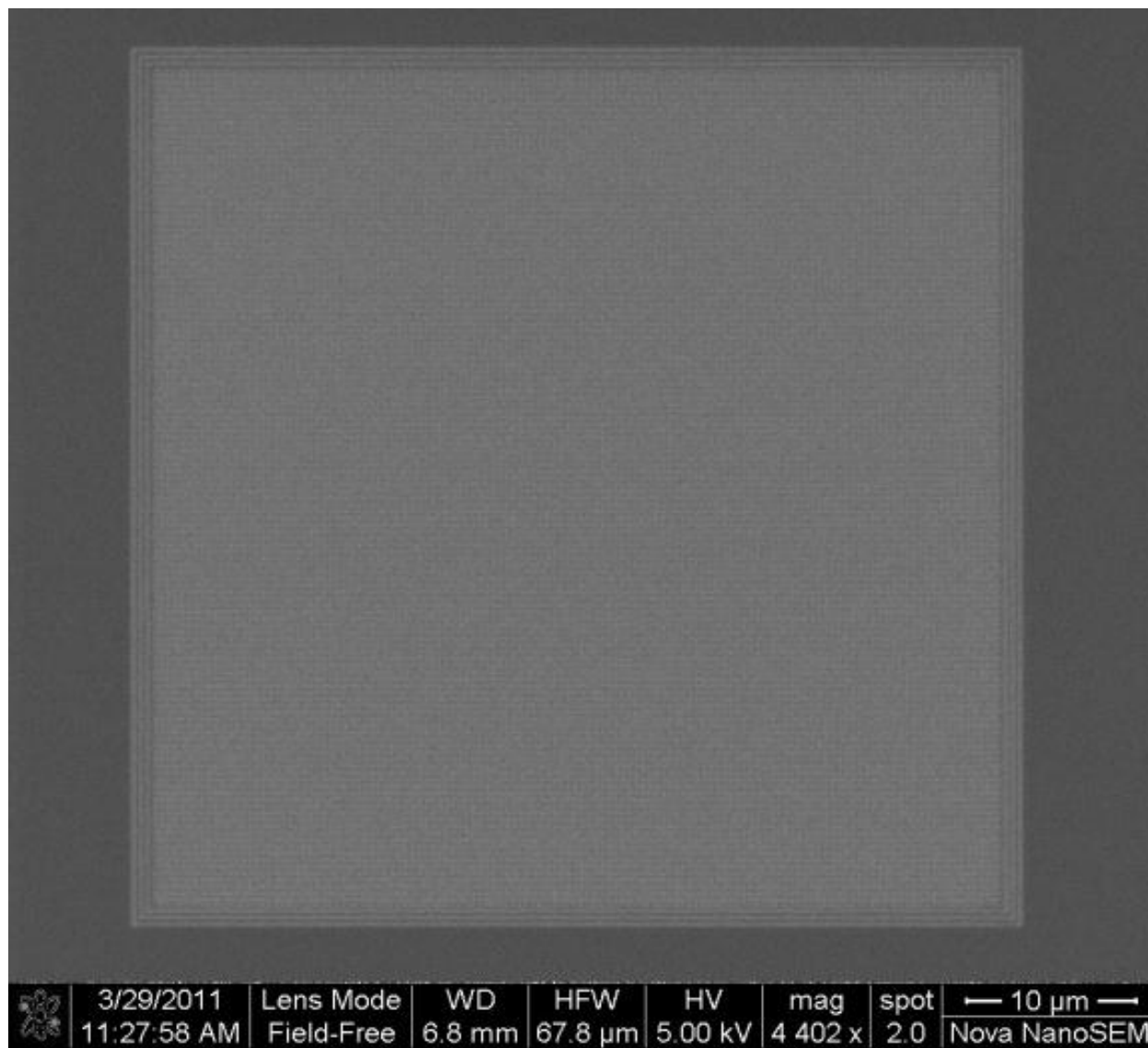


Figure S2. Curvature pattern of square lattice of 100 nm projected radius bumps with spacing of 200 nm and surrounding walls of 180 nm in thickness, 100 nm in height, spaced 250 nm apart produced by e-beam lithography.

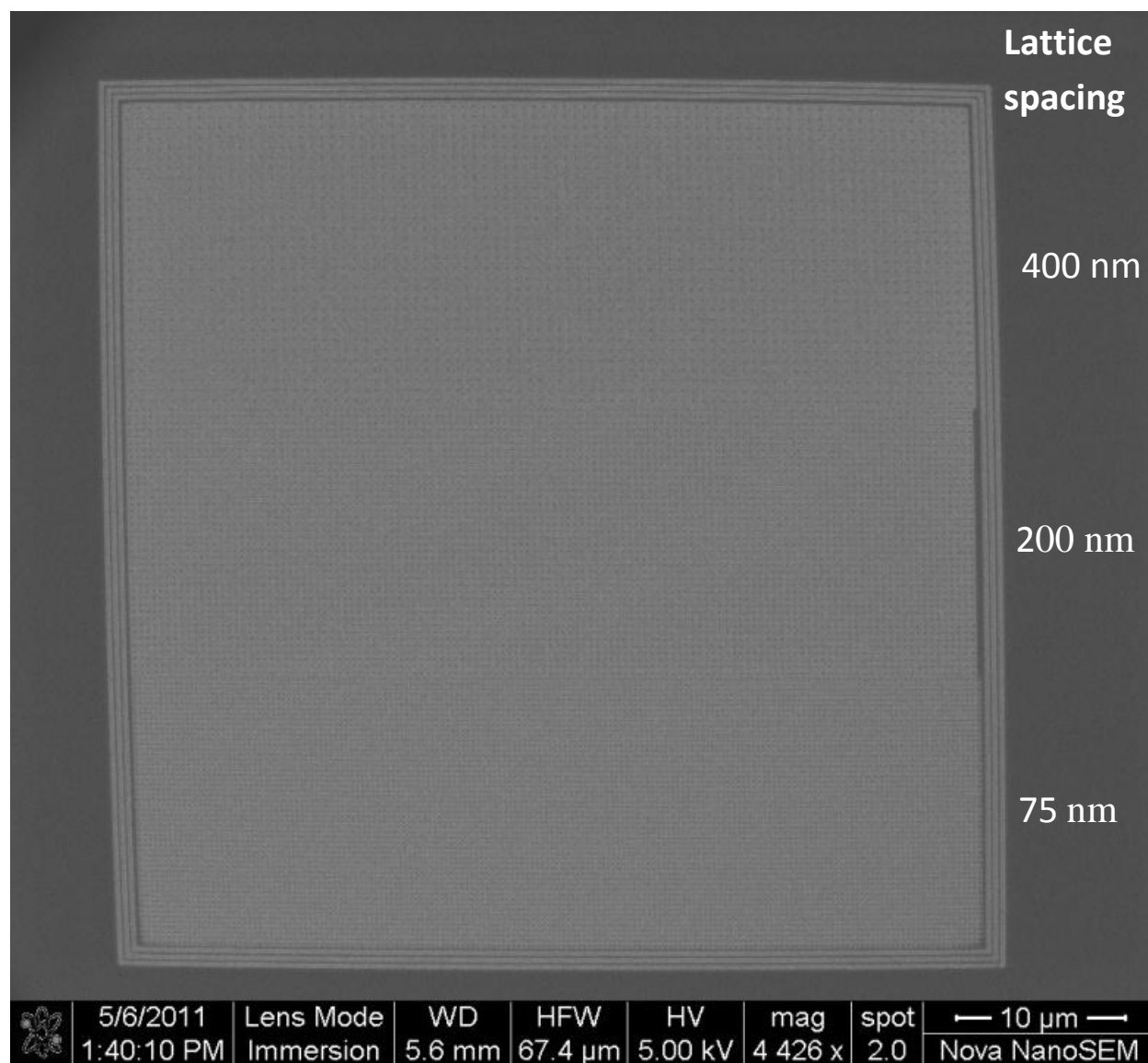


Figure S3. Curvature pattern of 100 nm projected radius bumps with 3 different lattice spacing, 400 nm, 200 nm and 75 nm surrounded by three walls of 180 nm in thickness spaced 250 nm apart produced by e-beam lithography.

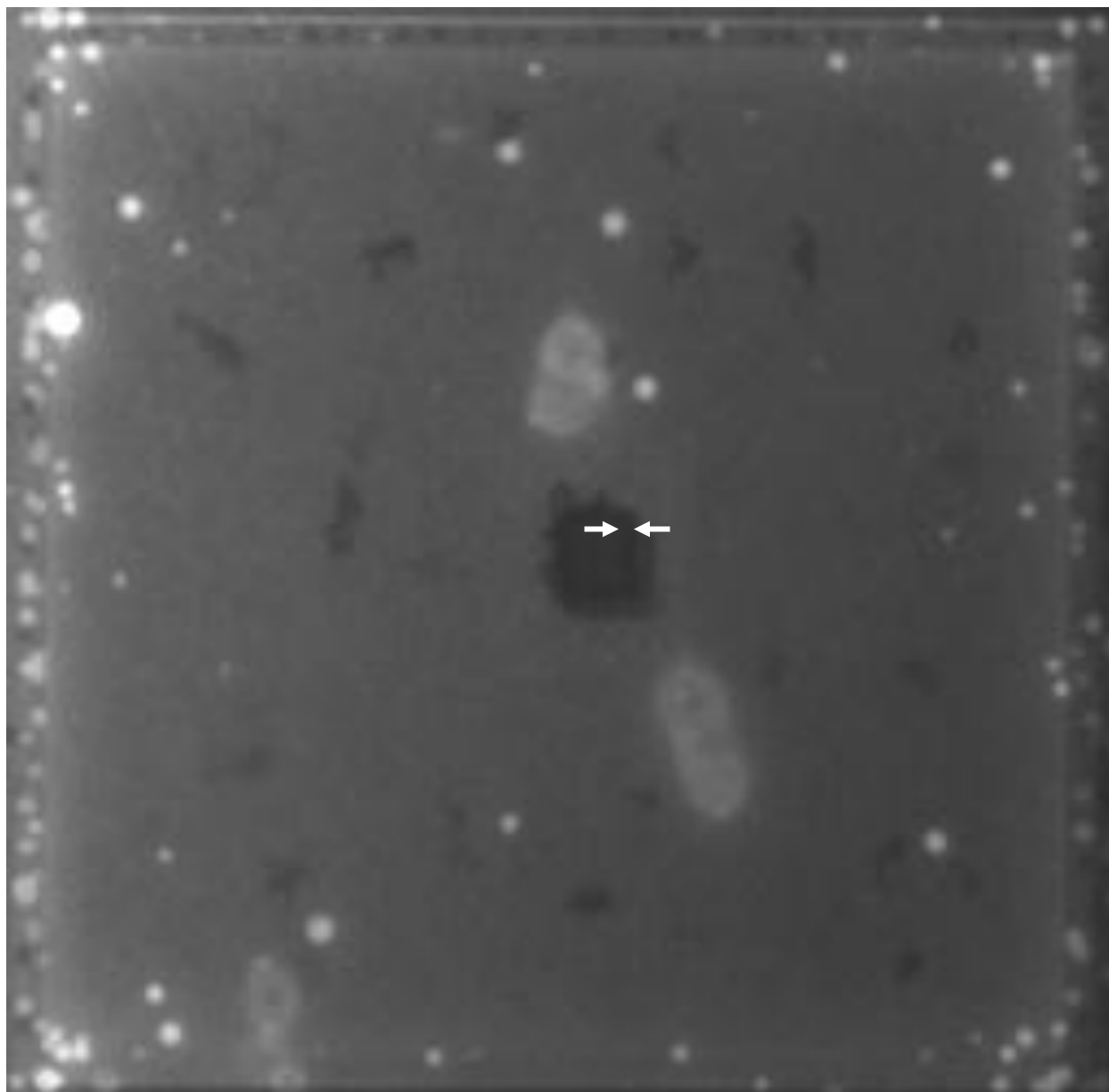


Figure S4. Time = 33 hours for partitioning of the L_o phase associated with a flat region of square geometry in the centre of the lattice pattern of bumps. The centre region has lightened in shading except for a dark border (arrows) indicating that the majority of this square region contains L_o phase lipid in one bilayer of the multilayer at 33 hours.

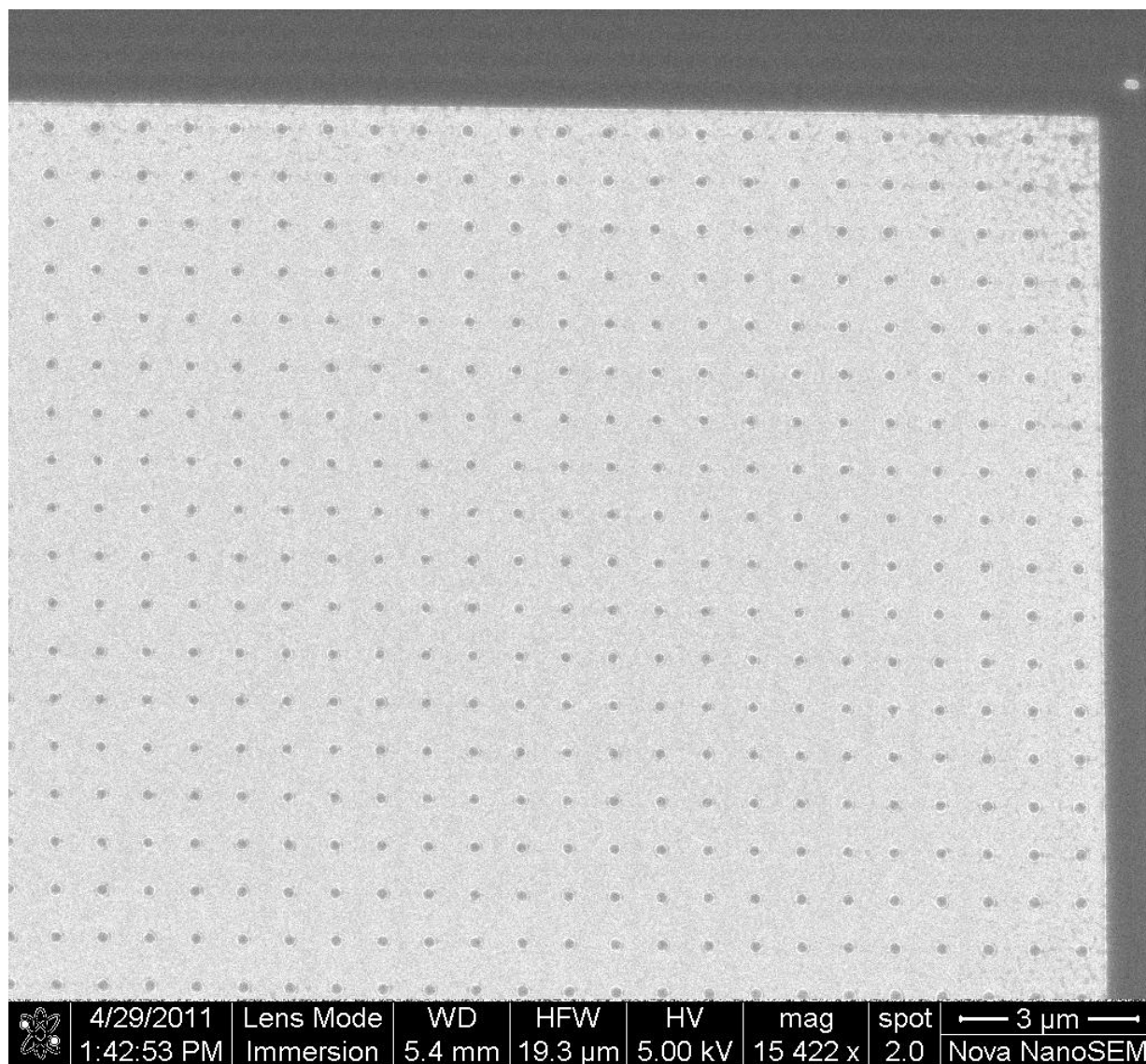


Figure S5. Curvature pattern of walled-in area ($15 \mu\text{m} \times 50 \mu\text{m}$) containing a square lattice of 100 nm projected radius bumps with a spacing of 600 nm between the bumps produced by e-beam lithography.

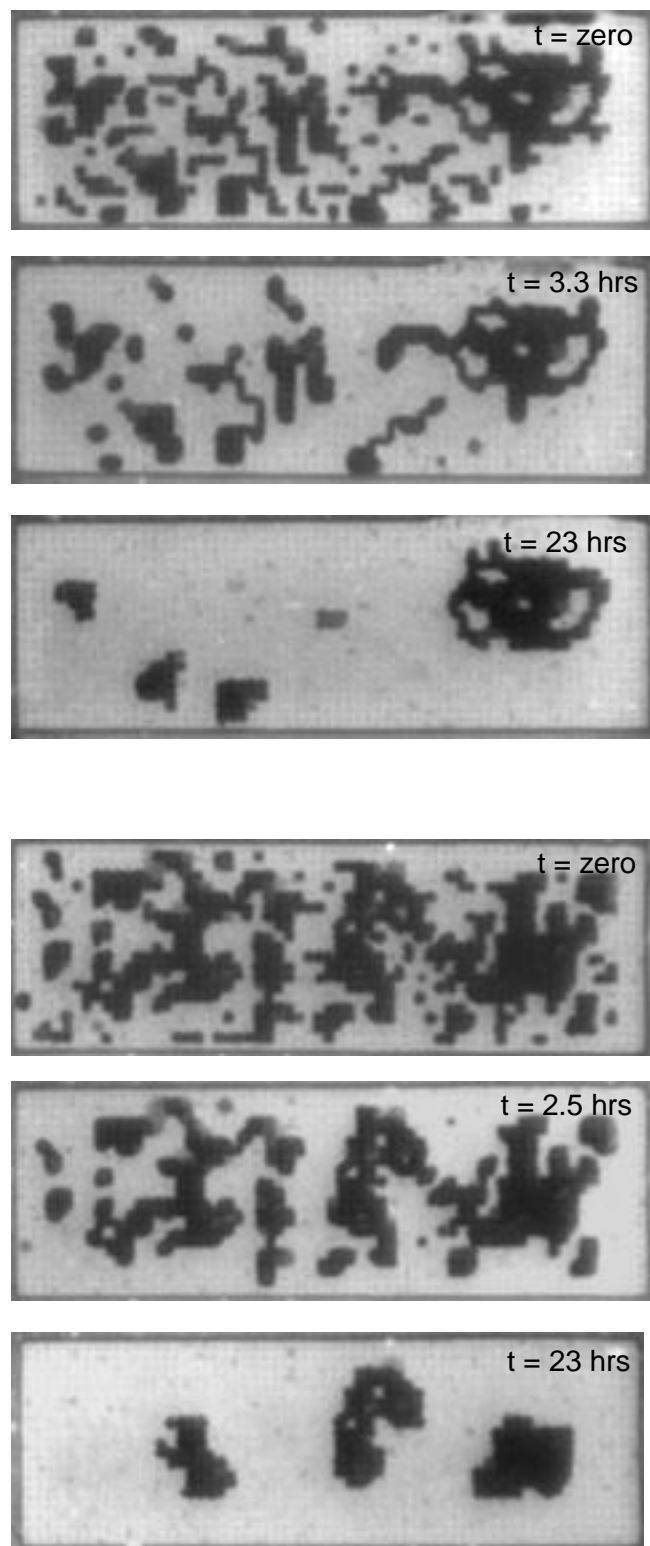


Figure S6. Two examples of spontaneous switching of the L_0 pixel location and size on the lattice as the area fraction decreases. At $t=0$, each domain pixels is centred and confined inside of a unit cell of 4 bumps, at $t\sim 3$ hrs each pixels is larger and appears to form an annulus around a bump confined by 4 unit cells, and at $t=23$ hrs the pixels have switched back to being centred inside of a unit cell.