

Fig. S1. SEM images of nine prepared special topology silicon nanostructures (TSNS): (a) irregular porous structure, (b) aperture array structure, (c) spongy structure, (d) long-columnar structure, (e) spiny structure, (f) short-columnar structure, (g) fascicular texture, (h) conical structure, (i) pyramid structure. (Scale bar: $5\mu\text{m}$)

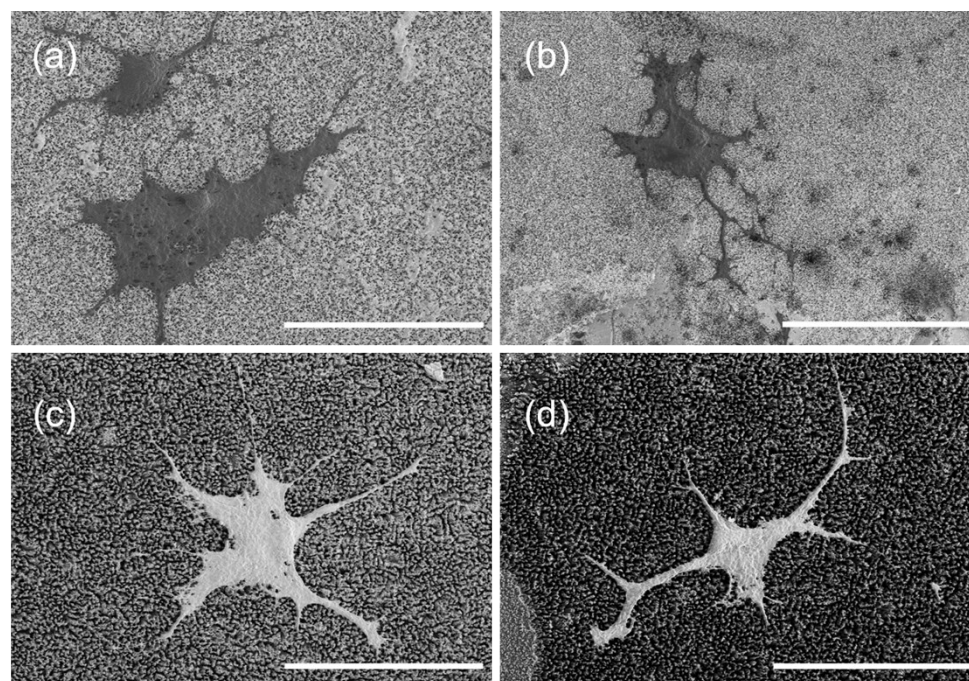


Fig. S2. SEM images of cell morphology on: (a) porous TSNS, (b) spongy TSNS, (c) columnar TSNS, (d) spiny TSNS. (Scale bar: $40\mu\text{m}$).