

Effect of surface energy and roughness on cell adhesion and growth - facile surface modification for enhanced cell culture

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Table S1: The different parameters used for predicting the length of a particular cell for a given surface of certain surface energy and roughness. (all the parameters in Eqn. 1-5).

Parameter	Value	Reference
ρ_b	0.015 \AA^{-3}	Zhao <i>et al.</i> NMR Biomed. 2008 Feb21(2):159-64
μ_r^0	30 kJ.mol^{-1}	
μ_b^0	5 kJ.mol^{-1}	
V	2600 \mu m^3	
T	310 K	
L_{co}	17 \mu m	

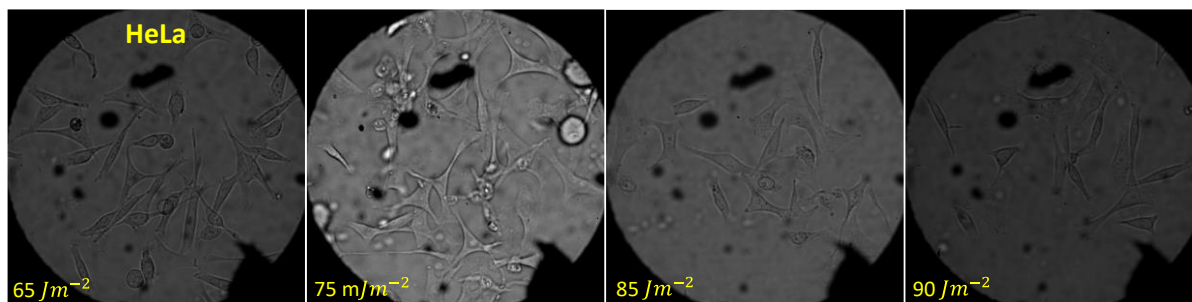


Fig. S1 The experimental images of cell growth and proliferation on normal PDMS surface, $\delta \approx 5 \text{ nm}$ or a roughness ratio, $r = 1.05$.

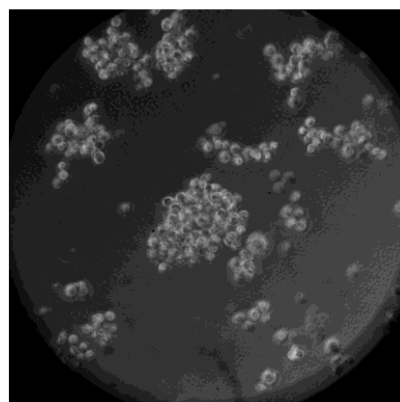


Fig. S2 The experimental image of cell growth on extreme low surface energy surfaces such as the superhydrophobic surfaces of $E_s \approx 21 \text{ mJ/m}^2$ and roughness ratio of $r = 2.5$.