

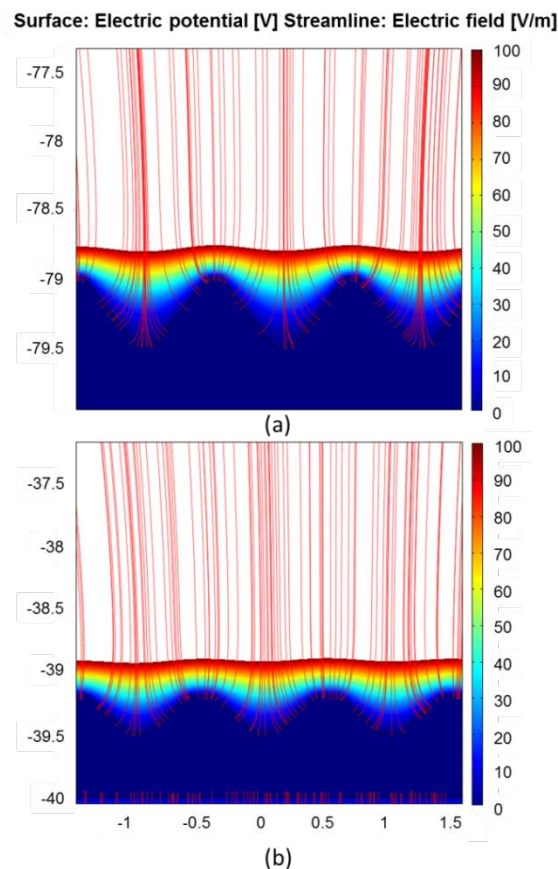
# Engineering the Microstructure of Electrospun Fibrous Scaffolds by Microtopography

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## Supporting Information

The electrical potential field close to the template surface was examined in the context of simulations (COSMOL, Palo Alto, CA) performed for grounded PDMS templates with different pyramidal geometries, 12 kV voltage applied to the needle, and template-needle distance fixed at 8 cm. Figure S1 shows the electrostatic field generated by templates with pyramidal posts of relatively large and small sidewall slopes. The much higher field intensity over the posts compared to the bottom of the microwells indicates a higher electrostatic force at the top of the posts. This explains the fiber deposition on the posts, the fiber bridging over the microwells (Figure S1a), and the almost conformal coverage of the posts by the fibers in the presence of a relatively more uniform field (Figure S1b).



**Figure S1.** Electrostatic potential field over micropatterned PDMS templates with pyramidal posts of relatively (a) large and (b) small sidewall slope.

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