Ultraporous Interweaving Electrospun Microfibers from PCL-PEO Binary Blends and their Inflammatory Responses

Yan-Fang Li, †, § Marina Rubert, † Hüsnü Aslan, † Ying Yu, § Kenneth A. Howard, † Mingdong Dong, † Flemming Besenbacher † and Menglin Chen*, †

†Interdisciplinary Nanoscience Center (iNANO), Aarhus University, DK-8000 Aarhus C, Denmark, §Institute of Nanoscience and Nanotechnology, Central China Normal University, Wuhan 430079, China.

Figure S1. High resolution SEM image (a), AFM image (b), and TEM image of mat VI, PCL/PEO = 10%:3%.
Figure S2. Morphology transformations of matV: PCL/PEO = 12%:2.4% by changing different electrospinning parameters and solvent ratio.
Figure S3. Time dependence of the water CAs for the PCL/PEO fibers. Mat I: PCL = 20%, mat II: PCL/PEO = 18%:0.6%, mat III: PCL/PEO = 16%:1.2%, mat IV: PCL/PEO = 14%:1.8%, mat V: PCL/PEO = 12%:2.4%, mat VI: PCL/PEO = 10%:3%, mat VII: PCL/PEO = 8%:3.6%, mat VIII: PCL/PEO = 6%:4.2%, mat IX: PCL/PEO 4%:4.8%, mat X: PCL/PEO = 2%:5.4%, mat XI: PEO = 6%.

Figure S4. Contact angles of PCL/PEO scaffolds before and after water treatment.
Figure S5. Morphologies of the fibers before and after water treatment: Top: (a) Mat III, (b) Mat V, and (c) Mat VII are the samples before water treatment; bottom: (a'), (b'), (c') are the samples after water treatment, respectively.
Figure S6. Flattened height images from Figure 3 and corresponding FFT calculations. All images are 500x500 nm.