fibers

MDPI

Supplementary data

Optimization of Polyvinyl Alcohol-Based Electrospun Fibers with Bioactive or Electroconductive Phases for Tissue-Engineered Scaffolds

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Table S1. Summary of PVA based electrospun fibers.

Sample	Composition (w/v)	Solvent	Post Treatment (w/v)
PVA10	10%PVA	H_2O	Citric Acid (10%)
PVA12	12%PVA	H_2O	Citric Acid (10%)
PVA(+PEO)	10%PVA-0,1%PEO	H_2O	Citric Acid (10%)
PVA(+Gelatin)	8%PVA-4%Gelatin	H_2O: AcOH (2:1)	EDC:NHS (7.5%) *
PVA(+PEDOT:PSS)	7%PVA-1.2%PEDOT:PSS	H_2O	Citric Acid (10%)
PVA(+PVP)	6%PVA-6%PVP	H_2O	Citric Acid (10%)

* EDC/NHS solutions (7.5 wt.%) were prepared with the ratio of EDC/NHS was 2/1 (w/w) and added into ethanol solution (VEthanol/VH2O =95/5).

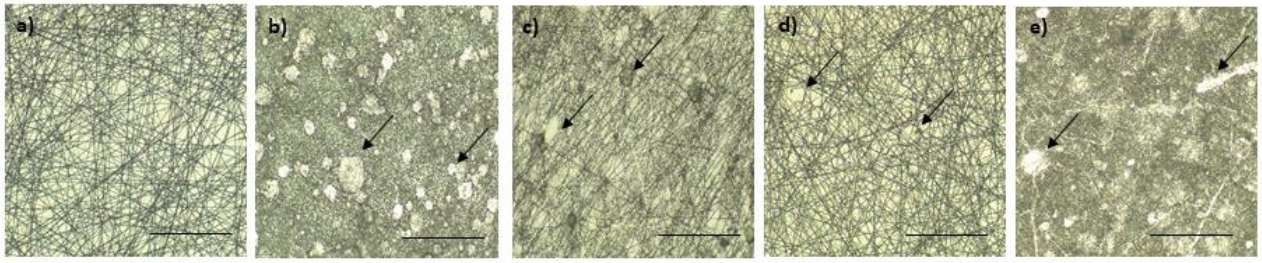

Figure S1. Comparison of optical images of electrospun PVA fibers produced by using different process parameters (flow rate, Voltage, Electrode gap): a) 0,3ml/h, 20kV, 25cm; b) 0.1ml/h, 20kV, 25cm; c) 0,3 ml/h, 18kV, 25 cm; d) 0,3 ml/h, 22kV, 25 cm and e) 0,3ml/h, 20kV, 15cm. (Scale bar 50μm). Black arrows indicate the presence of defects.

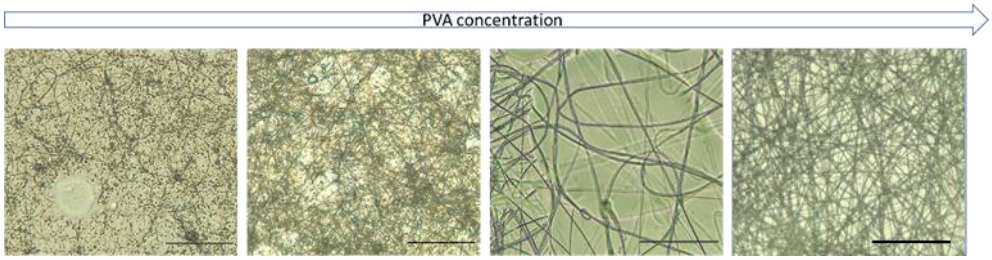

Figure S2. Optical images of electrospun fibers from PVA aqueous solutions at different concentrations: a) 6% w/v and b) 8% - beaded fibres; c) 10% w/v and d) 12% w/v - beadless fibers (Scale bar: 50μm).

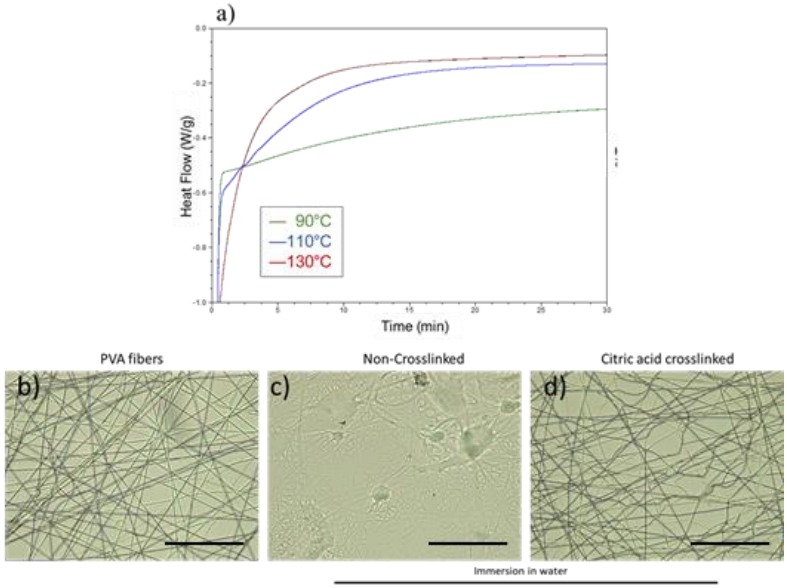

Figure S3. Thermal crosslinking of PVA/PEO nanofibers: (**a**) isothermal analysis at 90°C (green), 110°C (blue), 130°C (red) and (**b**) optical images of PVA fibers before (**b**) and after immersion in water of PVA fibers non-crosslinked (**c**), and PVA crosslinked (**d**) fibers. (Scale bar: 50μm).