

**Table S1.** Electrospinning parameters for the preparation of electrospun nanofibers described in this review.

Polymers	Solution-related parameters	Processing parameters	Environmental parameters	Reference
PVA	4 wt% PVA-PAA-SiO <sub>2</sub>	Operating voltage: 17 kV; tip-to-collector distance: 12 cm; Solution flow rate: 0.66 mL/h; Rotating collecting drum	T: 25 °C RH: 45%	[49]
	0.3 wt% AgNO <sub>3</sub>			
	4 wt% PVA-PAA-SiO <sub>2</sub>	Operating voltage: 20 kV; tip-to-collector distance: 15 cm; Solution flow rate: 1.0 mL/h; Rotating collecting drum	T: 25 ± 3 °C RH: 45 ± 5%	[50]
	3 wt% CS 0.3 wt% AgNO <sub>3</sub>			
	15 wt% PVA 0.1 wt% colloidal AgHEC NPs (volume ratio 1:1).	Operating voltage: 30 kV tip-to-collector distance: 20 cm Solution flow rate: 0.02 ml/min	T: 22 ± 2 °C RH: 35 ± 5%	[58]
	7 wt % PVA 5%, 10%, 15%, 20% (w/w) CNC;	Operating voltage: 22 kV; Tip-to-collector distance: 10 cm; Solution flow rate: 0.5 mL/h	Room temperature RH: 50 ± 5%	[59]
	0.08g/mL PVA 0.28 g/ mL PVP 50:50(v/v);			
	0.1 g, 0.5 g and 1 g of ZnO NPs were added separately	Operating voltage: 15 kV; Tip-to-collector distance: 10 cm; Solution flow rate: 0.001 ml/h	N.A.	[60]
	10 wt% PVP 3, 10 and 25 wt% PVP (nanoclay:PVP 3:97, 10:90, 25:75).	Operating voltage: 15 kV; 21-gauge blunt stainless-steel needle; Tip-to-collector distance: 10 to 20 cm; Solution flow rate of 6 µL/min; Rotating collecting drum	RH: 30 ± 1%	[61]
	10% PVA 0.25 g, 0.50 g, and 0.75 g of ZnAc (w/w); 15% ZnAc	Operating voltage: 18 kV; Solution flow rate: 0.015 mL/min; 23-gauge needle	N.A.	[62]

PVA:Cu 60:40 (w/w)	Operating voltages: 12, 16, 18 kV Needle Tip-Collector Distance: 18, 18, 20 cm Solution flow rate: 0.6, 0.5 and 0.2 ml/h	N.A.	[64]
10 wt% PVA 2 wt% CS 10-50 wt% P(ADMH-NVF)	Operating voltage: 20 kV 19 gauge needle tip; Tip-to-collector distance: 20 cm; Solution flow rate: 0.5 mL/h	N.A.	[70]
PVA konjac glucomannan (KGM) solutions (various ratio) ZnO NPs (0, 0.5, 1.0, 1.5, 2.0 wt %)	Operating voltage: 18 kV; Tip-to-collector distance: 15 cm; Solution flow rate: 0.66 mL/h; Grounded metal roller	T: 25 ± 2 °C RH: 40 ± 2%	[71]
12 wt% PVA 3wt% TA	Operating voltage: 15 kV; 22-gauge metal needle; Tip-to-collector distance: 15 cm; Grounded drum covered with non-woven fabric	T: 25 ± 3 °C RH: 30 ± 5%.	[82]
10% wt PVA 5 % wt LS 2 ‰ wt CTAB	Operating voltage: 18 kV; Tip-to-collector distance: 15 cm; Solution flow rate: 0.6 mL/h Rotating collecting drum	T: 25 ± 2 °C RH: 35 ± 5%	[75]
8 %w/w PVA 0.1% CNPs 1 mL TLE	Operating voltage: 22 kV; Needle (23 gauge); Tip-to-collector distance: 20 cm; Solution flow rate: 0.15 mL/h	Room temperature	[76]
10 wt% PVA; 10 wt% zein;	Operating voltage: 14 kV; Tip-to-collector distance: 12 cm; Solution flow rate: 0.8 mL/h	N.A.	[78]
9 w/v% PVA 3.5% SF	Operating voltage: 20 kV; Micro-needle (22-gauge); Tip-to-collector distance: 20 cm. Solution flow rate: 0.2 mL/h.; Grounded roll-drum collector	Room temperature	[80]

	10 wt% PVA 0, 4, 8, 12 wt% citric acids 8 wt% sodium acetate	Operating voltage: 25 kV; 25 gauge syringe needle; Tip-to-collector distance: 15 cm Solution flow rate of 0.3 ml/hr	N.A.	[81]
	13 wt.%PVA 0, 0.25, 0.50, 0.75, 1.0 wt.%Triton X100; 5.0 wt.% citric acid	Operating voltage: 27 kV; Needle 0.60 mm inner diameter; Tip-to-collector distance: 10 cm; Solution flow rate: 0.5 mL/h; Rotating cylinder collector covered by cellulose substrate	T: 25 °C RH: 48%	[82]
	10 wt% PVA (various ratio)Sodium sulphobutyleth er-β- cyclodextrin (SBE-βCD) 1 wt‰ Benzyl dimethyl dodecyl ammonium chloride (DDBAC)	Operating voltage: 20 kV; 20 gauge needle; Tip-to-collector distance: 16 cm; Solution flow rate: 0.8 mL/h Drum collector with non-woven fabric	T: 25±5 RH: 30±5	[84]
PVP	15 wt % PVP; 5, 10, 20 wt % Fe <sub>3</sub> O <sub>4</sub> MNPs	Operative voltage: 15 kV Tip-Collector Distance: 10 cm; Solution flow rate: 3 mL/h; Grounded aluminum foil collector;	N.A.	[67]
	0.21 g/mL PVP Zn (mole fraction 0.00,0.17,0.30, 0.50,1.00)	Operative voltage: 1.16 kV/cm 21-gauge stainless needle; Solution flow rate: 3 μL/min; Drum collector covered with an aluminum foil and rotated at 100 rpm.	N.A.	[68]
	8% w/w PVP 40% w/w shellac PVP solutions.	Operating voltage: 15 kV; Needle Tip-Collector Distance: 13 cm; Solution flow rate: 1.0 mL/h;	T: 25 °C RH: 40–60%	[72]
PEO	8% wt blend solutions of PEO and	Operating voltage: 14 kV; Needle Tip-Collector Distance: 24 cm, Solution flow rate: 0.2 ml/h	N.A.	[73]

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keratin (various  
ratio)

1, 2, 3%  
(w/v)PEO 20%  
and 40% (w/v)  
 $\gamma$ - cyclodextrin  
( $\gamma$  -CD)

Operating voltage: 10–15 kV;  
Tip-to-collector distance 10–15 cm;  
Solution flow rate: 0.5–1 ml/h  
Grounded stationary cylindrical metal  
collector covered by a piece of aluminum  
foil

T: 22 °C  
RH: 30%

[47]

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N.A. not available