

Supporting Information

Improving the Washability of Conductive Textiles by Constructing a Dually Crosslinked Polyvinyl Alcohol Network with Silver Nanowires

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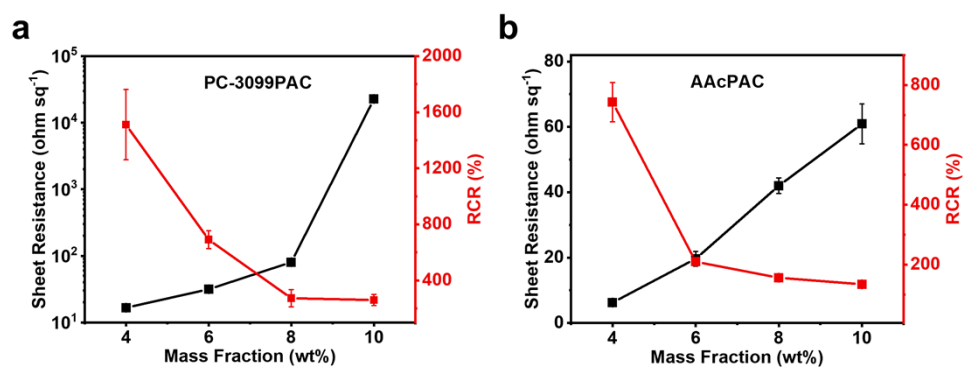


Fig. S1 (a) Sheet resistance and 1 h RCR of PC-3099PAC (sample with only physical crosslink) as a function of the mass fraction of PVA-3099. (b) Sheet resistance and 1 h RCR of AAcPAC (sample with only chemical crosslink) as a function of the mass fraction of AA-PVA.

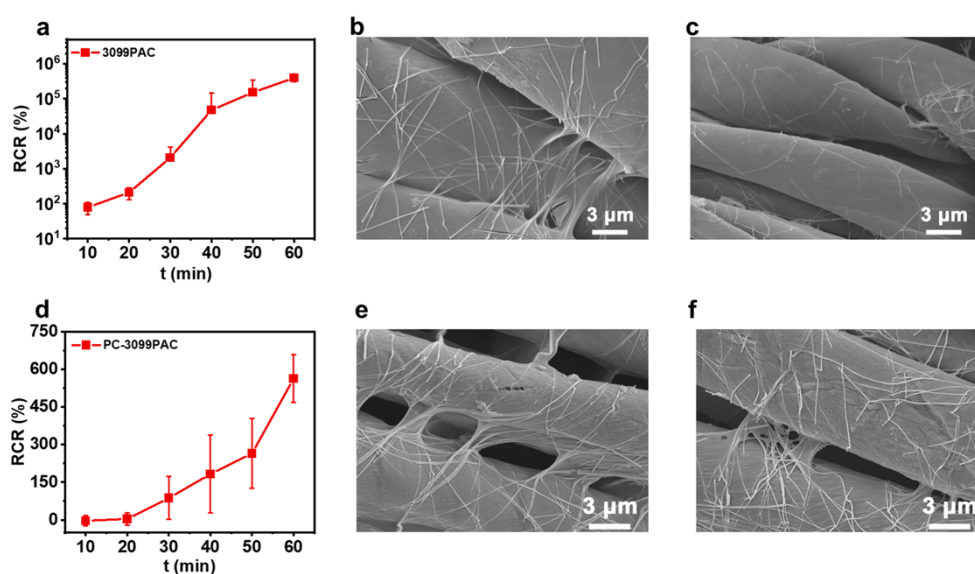


Fig. S2 Effect of physical crosslink on sample washability: (a) RCR of 3099PAC as a function of washing time and SEM images of 3099PAC (b) before and (c) after washing for 1 h; (d) RCR of PC-3099PAC as a function of washing time and SEM images of PC-3099PAC (e) before and (f) after washing for 1 h.

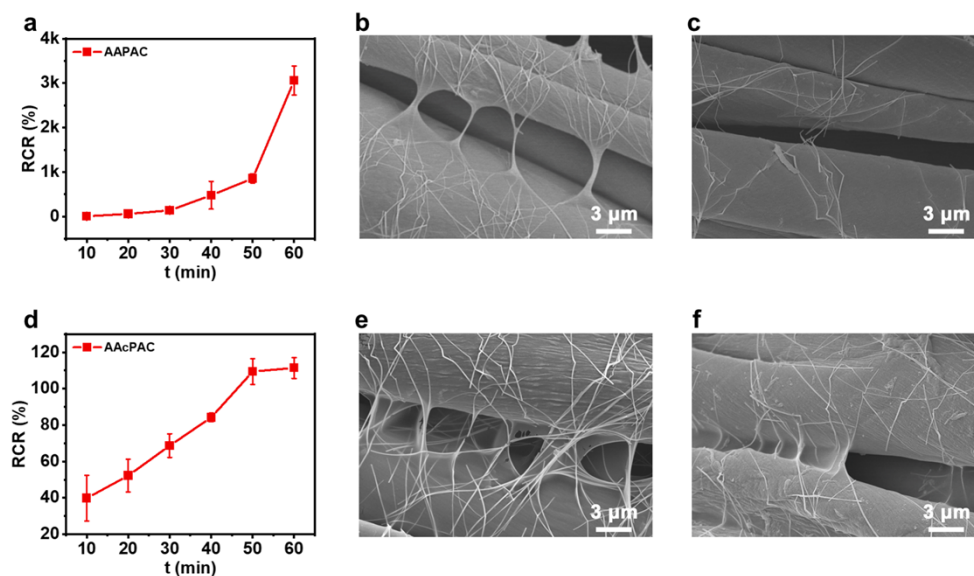


Fig. S3 Effect of chemical crosslink on sample washability: (a) RCR of AAPAC as a function of washing time and SEM images of AAPAC (b) before and (c) after washing for 1 h; (d) RCR of AAcPAC as a function of washing time and SEM images of AAcPAC (e) before and (f) after washing for 1 h.

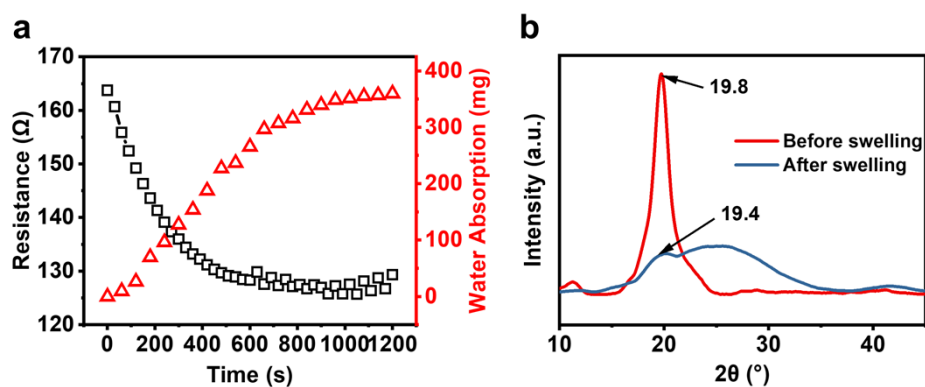


Fig. S4 (a) Resistance and water absorption of PC-3099AAcPAC as a function of humidification time. (b) XRD patterns of PC-3099AAcP before and after swelling.

Tab. S1 Preparation process of conductive fabrics under different crosslinking modes.

Sample	Ink	Processing	Crosslinking form
3099PAC	3099PA	Annealing after printing	No crosslink
PC-3099PAC	3099PA	Annealing after printing and freezing-thawing cycles	Physical crosslink only
AAPAC	AAPA	Annealing after printing	No crosslink
AAcPAC	AAcPA	Annealing after printing	Chemical crosslink only
PC-3099AAcPAC	3099AAcPA	Annealing after printing and freezing-thawing cycles	Double physical and chemical crosslink