

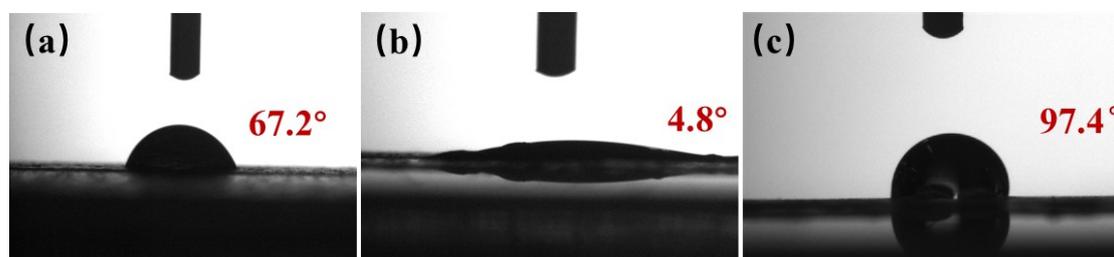
## Photochromic Nanofiber-Based Transparent Composite Film and Its Application in Information Encryption

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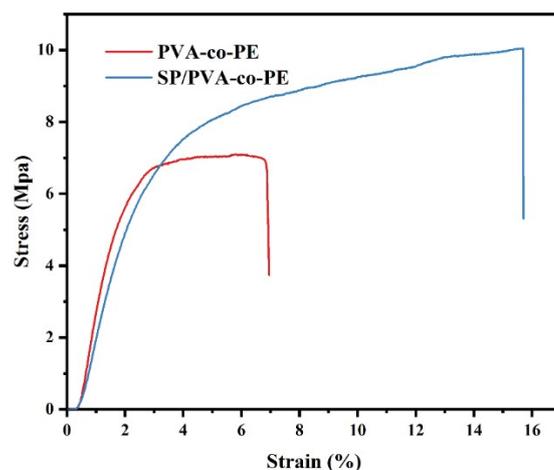
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**Figure S1** Contact angle test of the (a) PVA-co-PE, (b) APTES/PVA-co-PE, SP/PVA-co-PE nanofiber films.



**Figure S2** Tensile strength of the PVA-co-PE and SP/PVA-co-PE nanofiber films.

**Table S1** Optical transparency of the PVP/SP/PVA-co-PE transparent film at different PVP contents.

PVP content of the PVP/SP/PVA-co-PE transparent film (%)	Transmittance
5	34.88
10	80.49
15	87.40
20	89.63

**Table S2** Comparison of photochromic properties of spiropyran-based materials

<b>Materials</b>	<b>Stimulus</b>	<b>Response time</b>	<b>Recovery time</b>	<b>Ref.</b>
AAO/SP film	UV/Visible light	340 s	60 min	[1]
f-CNP-g-poly(St-co-SP) film	UV/Visible light	300 s	360s	[2]
Cotton/SP film	UV/Temperature (25 °C)	4 min	90 min	[3]
Organophilic Clays/SP hybrids	UV/Visible light	2 min	12-14 h	[14]
<b>SP/PVA-co-PE nanofiber film</b>	<b>UV/Green light</b>	<b>60 s</b>	<b>120 s</b>	<b>This paper</b>
<b>PVP/SP/PVA-co-PE transparent film</b>	<b>UV/Green light</b>	<b>60 s</b>	<b>30 min</b>	<b>This paper</b>

### References

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