

# Supporting Information

## Sustainable Cellulose-Derived Organic Photonic Gels with Tunable and Dynamic Structural Color

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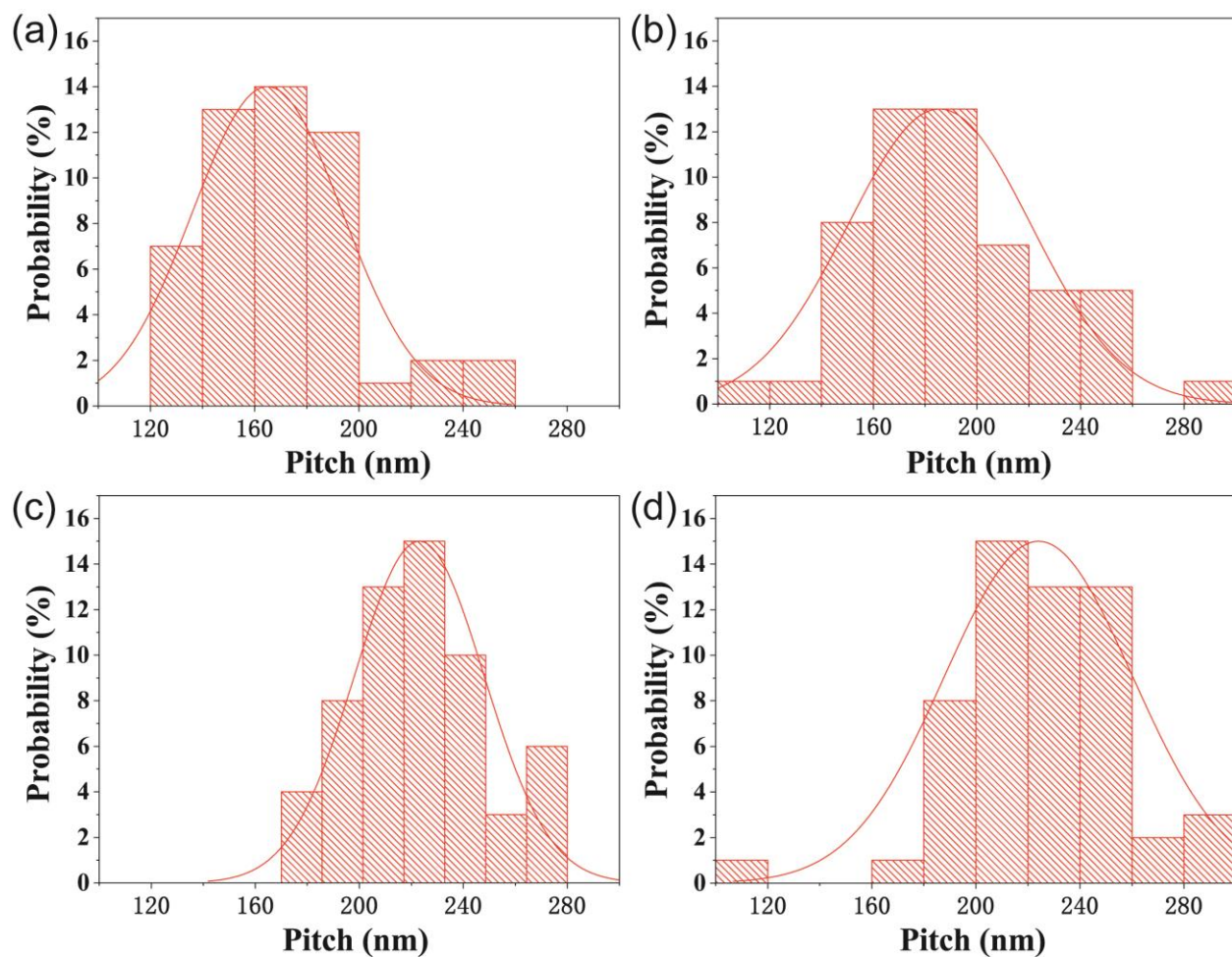
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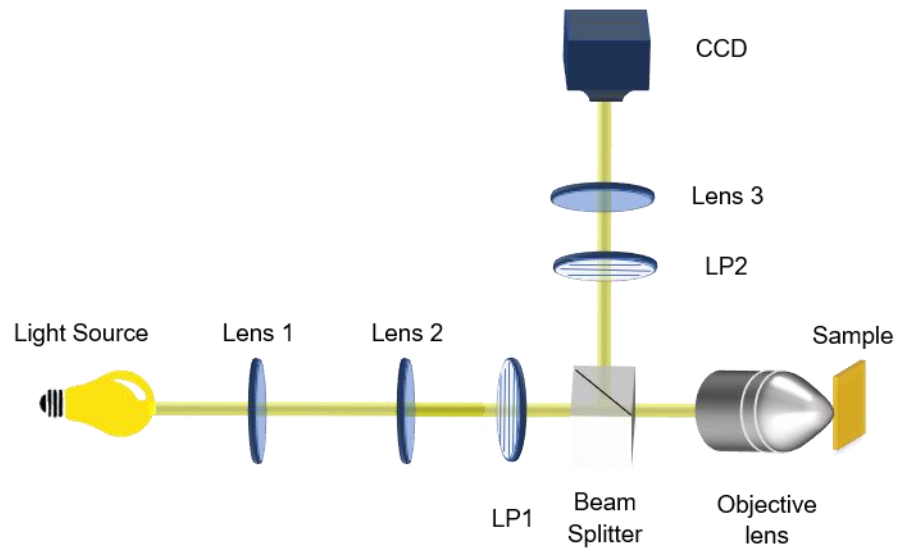
## Results and Discussion

Table S1. The uniformity characterization of different HPC gels

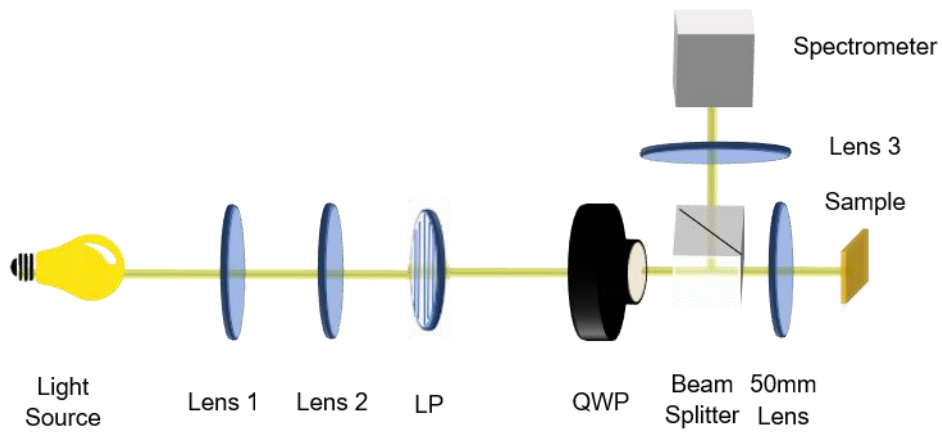
	HPC	HPC/TEG-DE	HPC/DEG-EEA	HPC/DEG-DA
Wavelength difference (nm)	7.0	2.5	6.0	4.5
Standard deviation	2.9	1.0	2.5	1.8



**Figure S1.** The distribution of pitches for four different films, namely (a) HPC, (b) HPC/TEG-DE, (c) HPC/DEG-EEA, and (d) HPC/DEG-DA, was statistically analyzed from the SEM images.



**Figure S2.** Schematic diagram of the optical setup for polarized optical microscopy.



**Figure S3.** Schematic diagram of the optical setup for circular dichroism measurement.

**Video S1.** Color change of composite gel under changed temperature (shown in the attachment)

**Video S2.** Color change of composite gel under pressing and releasing (shown in the attachment)

**Video S3.** Color change of composite gel under stretching and releasing (shown in the attachment)