## Novel anthocyanin electrospun film by caffeic acid copigmentation for real-time fish freshness monitorin

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## **Supplementary Information**

**Fig. S1** Photographs of electrospun PAN-BA fiber films: the first behavior was voltage optimization diagram, the second behavior was velocity of flow optimization diagram and the third behavior was distance optimization diagram.

**Fig. S2** (a) Correlation analysis between TVB-N change and PAN-BA4 film color difference during storage at 25 °C, (b) Correlation analysis between TVB-N change and PAN-BA-CA5 film color difference, (c) Correlation analysis between pH and PAN-BA4 film color difference during storage, (d) Correlation analysis between pH and PAN-BA-CA5 film color difference.

**Fig. S3** (a) Correlation analysis between TVB-N change and PAN-BA4 film color difference during storage at 4 °C, (b) Correlation analysis between TVB-N change and PAN-BA-CA5 film color difference, (c) Correlation analysis between pH and PAN-BA4 film color difference during storage, (d) Correlation analysis between pH and PAN-BA-CA5 film color difference.











