Supplementary information

Chitosan Electrospun Membranes possessed natural pH-Responsive for Smart Real-Time Spoilage Detection of Shrimp

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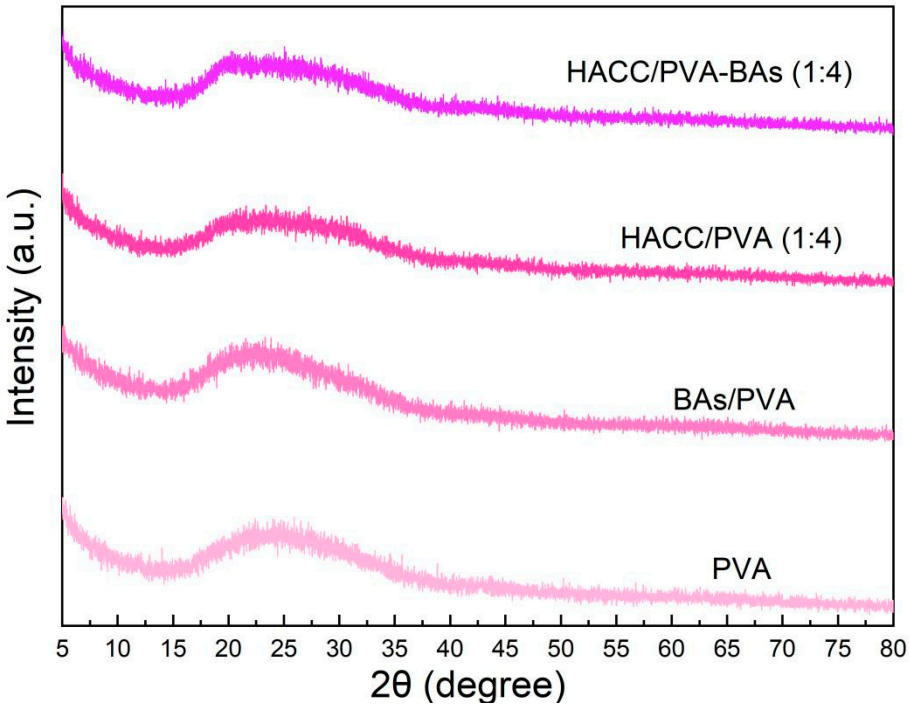


Figure S1 XRD patterns for different membranes.

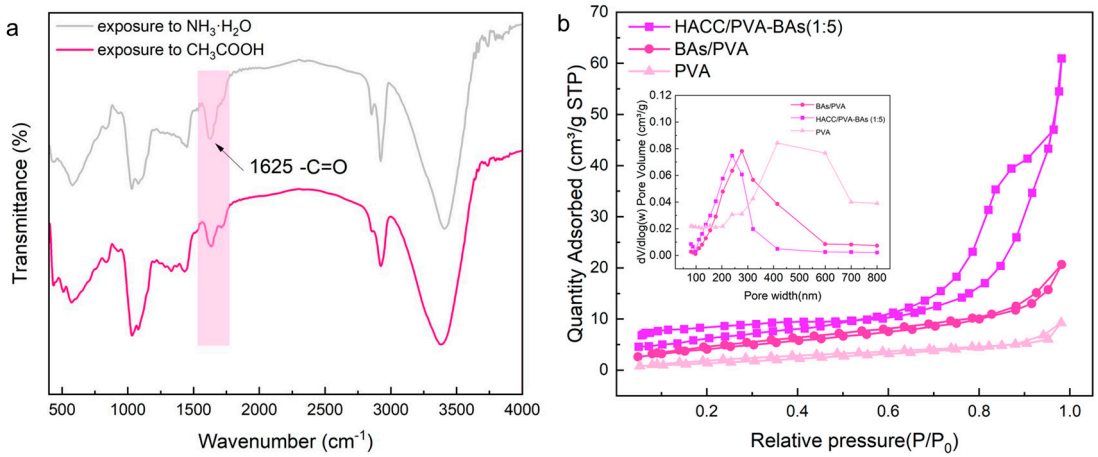


Figure S2 (a)The FTIR spectroscopy of HACC/PVA-BAs membranes (1:4) after CH_3COOH and $NH_3 \cdot H_2O$ fumigation. (b) The BET results of BAs/PVA, HACC/PVA-BAs (1:5), and PVA membranes.

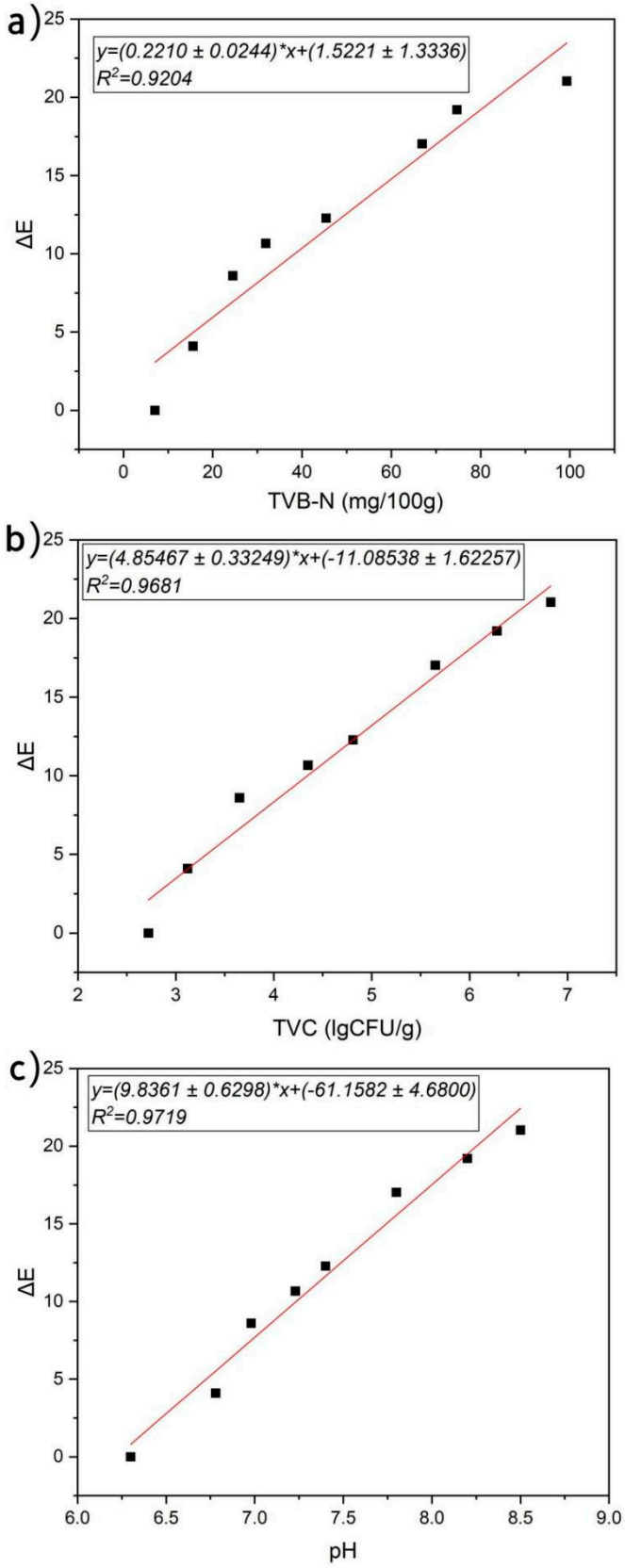


Figure S3 Correlations of the HACC/PVA-BAs membranes (1:4) indicator membranes between ΔE values and TVB-N, TVC, pH of the shrimp during storage at 25 ℃.

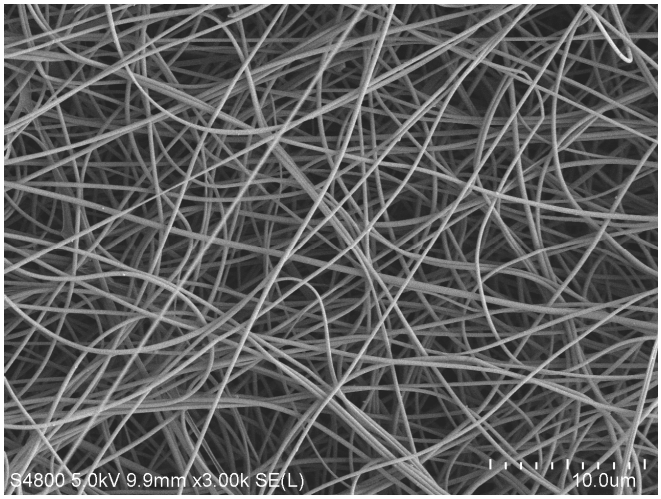


Figure S4 SEM images of HACC/PVA-BAs (1:4) membranes after storage under ambient conditions (25 ℃, 30 % relative humidity) for 30 days

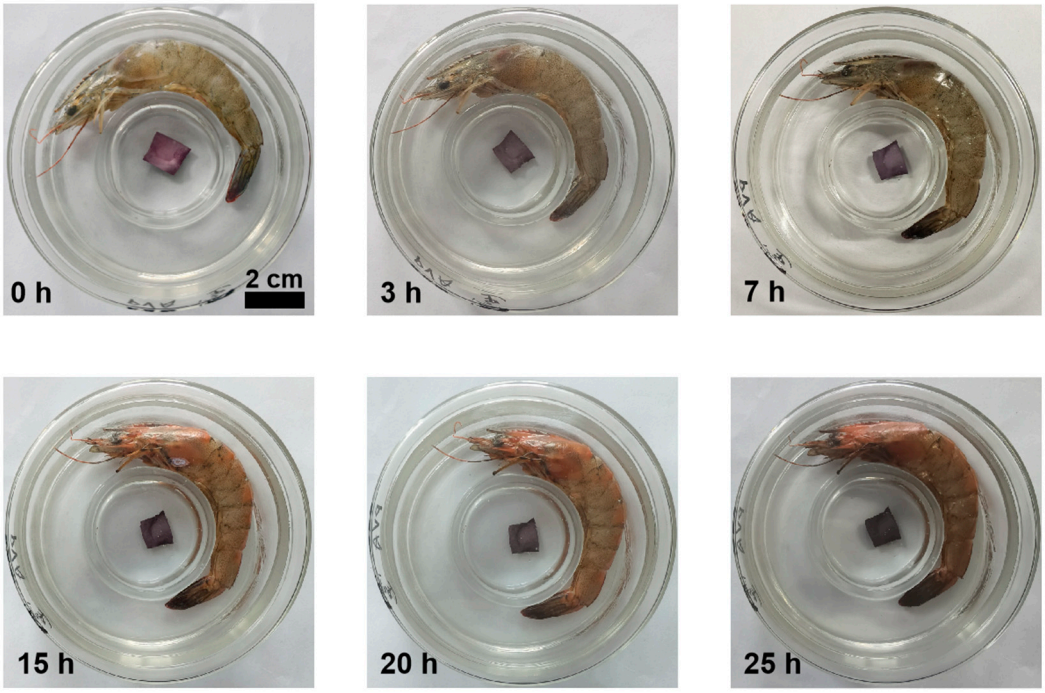


Figure S5 The color change of indicator membranes within 25 h at 25 ℃.

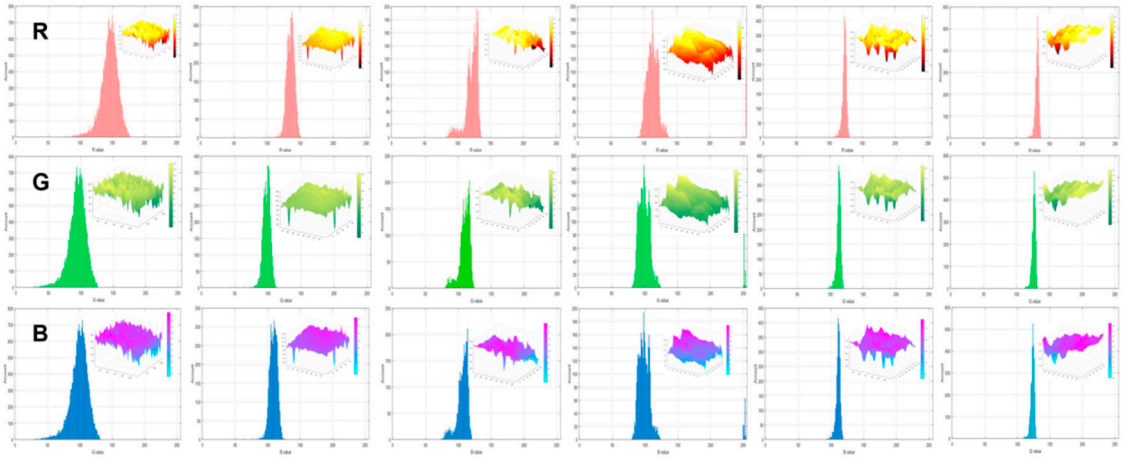


Figure S6 R, G and B values of all pixels on indicator membranes and their statistical results.