Support Information

Electrospun fibrous platform for visualizing the critical pH point inducing tooth demineralization

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Fig. S1. FTIR spectra of PS/PVP fibrous membranes (a), PS/PVP fibrous membranes after plasma treatment (b), BCG-PS/PVP fibrous membranes (c).

Fig. S2. The SEM images of (a) BCG-PS/PVP, (b) BCG-PS/PVP (pH 3.5), (c) BCG-PS/PVP (pH 4.0), (d) BCG-PS/PVP (pH 4.5), (e) BCG-PS/PVP (pH 5.0), (f) BCG-PS/PVP (pH 5.5), (g) BCG-PS/PVP (pH 6.0) and (h) BCG-PS/PVP (pH 7.0).
Fig. S3. Absorption spectra for 0.4 g/L BCG in solution (a) and BCG-PS/PVP fibrous
membrane (b) at different pH buffers.

Fig. S4. The relationship of UV absorption intensity of BCG with immersion time.

Fig. S5. Colorimetric pH-response performance of free BCG (a) and BCG-PS/PVP (b).

Fig. S6. Color comparison of BCG-PS/PVP fibrous membrane with different pH BHI.
broth solutions.

Table S1 Comparison of the BCG-PS/PVP fibrous membrane and mini pH detector

<table>
<thead>
<tr>
<th>mini pH sensor type, company</th>
<th>volume</th>
<th>sample bulk</th>
<th>calibration step</th>
<th>extra requirement</th>
</tr>
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<tbody>
<tr>
<td>TS-1, BUKER, China</td>
<td>large</td>
<td>~ mL</td>
<td>necessary</td>
<td>power supply system</td>
</tr>
<tr>
<td>B-712, HORIBA, Japan</td>
<td>large</td>
<td>≧ 50 μL</td>
<td>necessary</td>
<td>power supply system</td>
</tr>
<tr>
<td>this work</td>
<td>tiny</td>
<td>50 μL</td>
<td>unnecessary</td>
<td>None</td>
</tr>
</tbody>
</table>