SUPPLEMENTARY INFORMATION

Structural Colour Contact Lens Sensor for Point-of-Care Ophthalmic Health Monitoring

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Supplementary Table

Table 1 Average sizes and particle distribution index (PDI) of silica colloids used for the formation of structural color contact lens sensors with different colors

<table>
<thead>
<tr>
<th></th>
<th>Colloids for preparing red sensor</th>
<th>Colloids for preparing green sensor</th>
<th>Colloids for preparing blue sensor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average size</td>
<td>356±18 nm</td>
<td>240±11 nm</td>
<td>180±9 nm</td>
</tr>
<tr>
<td>PDI</td>
<td>0.050</td>
<td>0.046</td>
<td>0.050</td>
</tr>
</tbody>
</table>
Figure S1 FTIR spectrum of the hydrogel contact lens sensor, demonstrating its pure composition of PHEMA only.

Figure S2 The reflection spectra of the fresh red-colour contact lens sensor and the one stored in water for 2 months, demonstrating that there is no significant difference in optical properties between them.
**Figure S3** The plot demonstrating the change of the wavelength of reflectance peak with respect to the water loss percentage.

**Figure S4** The plot demonstrating the change of the wavelength of reflectance peak with respect to the pressure within the range of 0-40 kPa.