A Self-Referenced Diffraction-Based Optical Leaky Waveguide Biosensor Using Photofunctionalised Hydrogels

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Figure S1. Sensorgram of a chitosan LW irrigated with glycerol solutions prepared in 100 mM HEPES, pH 7.4 at different times where the inset plots shift in resonance angle versus the refractive index of glycerol solutions.
**Figure S2.** Shift in resonance angle of the LW for glycerol and PEG (35, 100 and 300 kD) solutions of 10 mg/ml concentration prepared in 100 mM HEPES, pH 7.4.

**Table S1.** RI of glycerol solutions of different concentrations measured using RFM900-T refractometer (Bellingham and Stanley, Kent, UK) with an accuracy of ±1 × 10⁻⁵.

| Concentration of glycerol (% w/v) | Refractive index (RI) |
|----------------------------------|-----------------------|
| Buffer i.e. 0                    | 1.33698               |
| 0.1                              | 1.33711               |
| 0.2                              | 1.33727               |
| 0.5                              | 1.33774               |
| 1                                | 1.33845               |
| 2                                | 1.33992               |