# Photonic crystal nanostructure as a photodetector for NaCl solution monitoring:
## Theoretical approach

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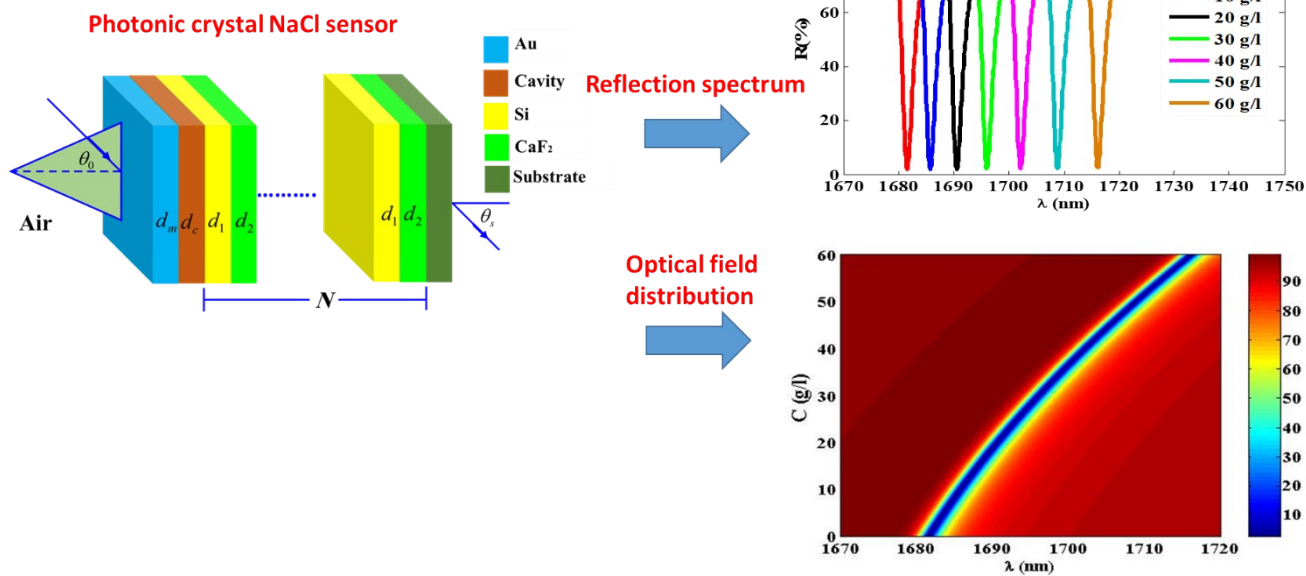* Corresponding Author E-mails: ahmed011236@science.bsu.edu.eg,
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Fig. S1. Graphical 3D dimensions representation of the suggested NaCl sensor that configured as,  [Prism/Au/water cavity/(Si/CaF$_2$)$^N$/glass substrate].
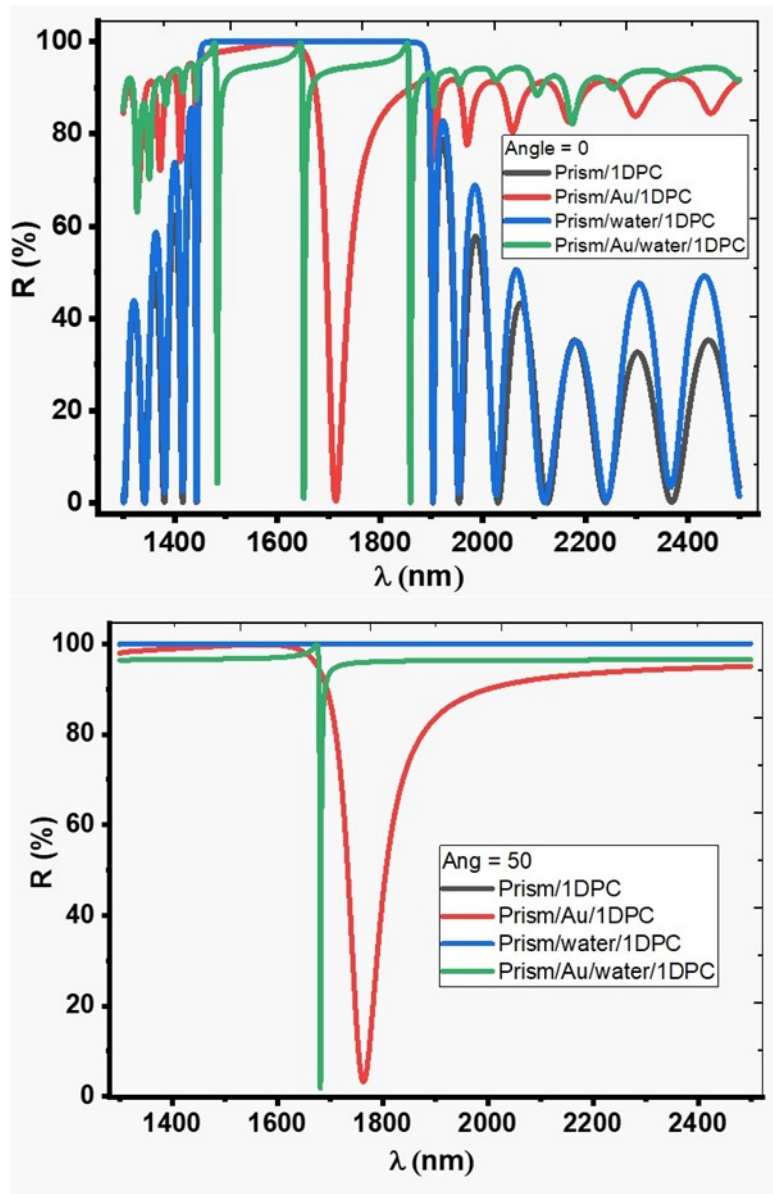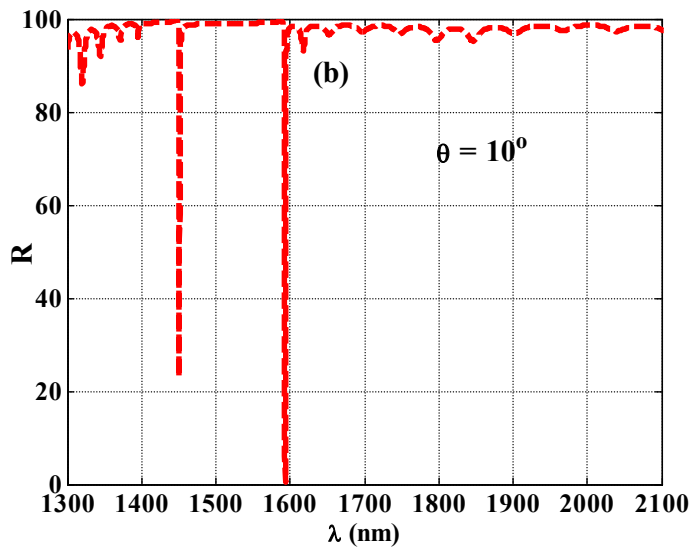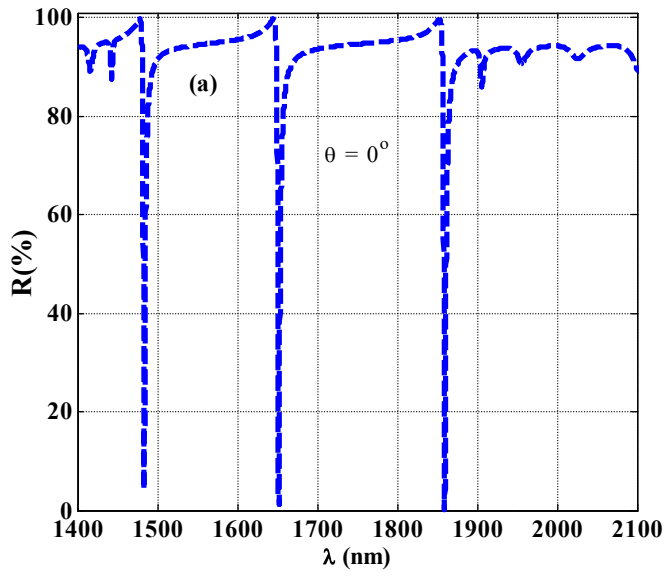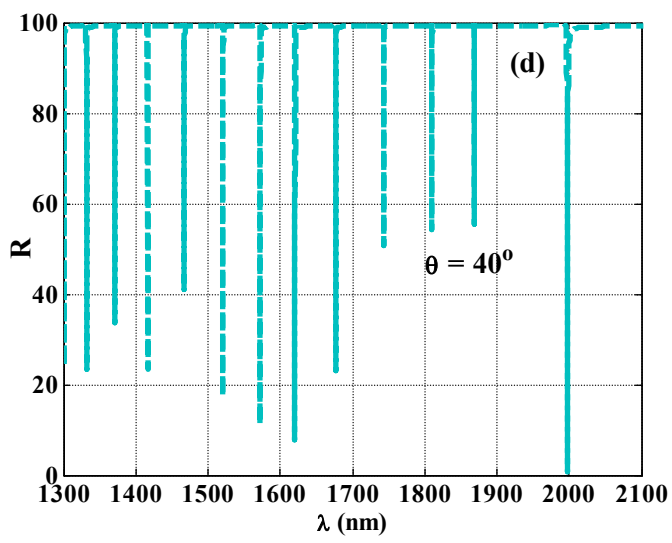
Fig. S2. The effect of the of the cavity layer on the reflectance of of the 1D PCs.

(a)

θ = 0°



(b)

θ = 10°
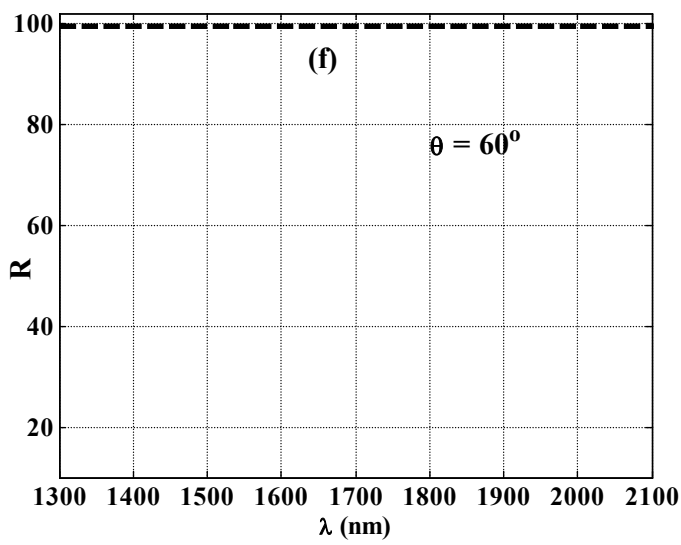
**(c)**

$\theta = 20^o$
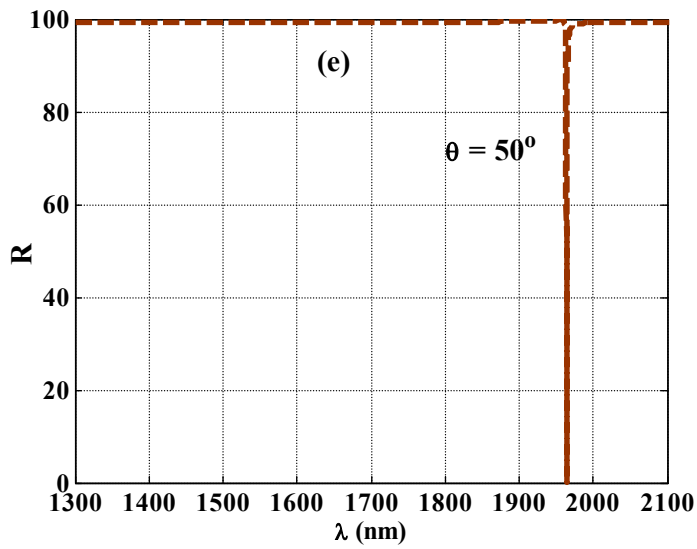
**(d)**

$\theta = 40^o$
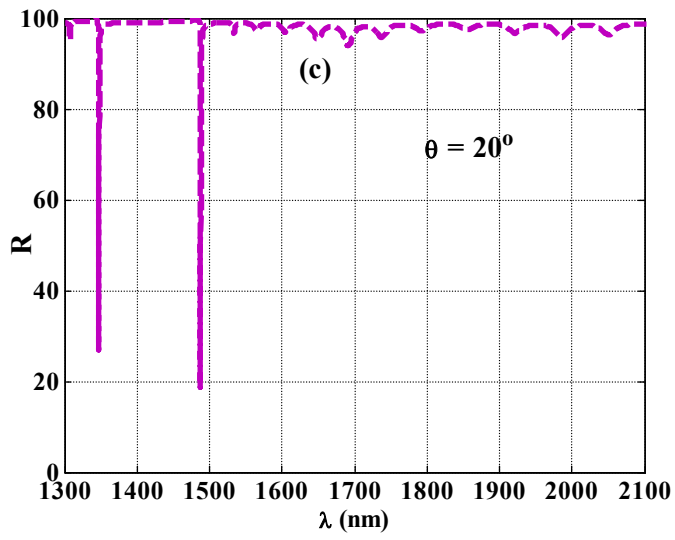
Fig. S3. The effect of the angle of incidence on the number of the TP resonance mode relative to the   change in the concentration of NaCl solution.