Article

Design of an Aluminum/Polymer Plasmonic 2D Crystal for Label-Free Optical Biosensing

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Supplementary Data

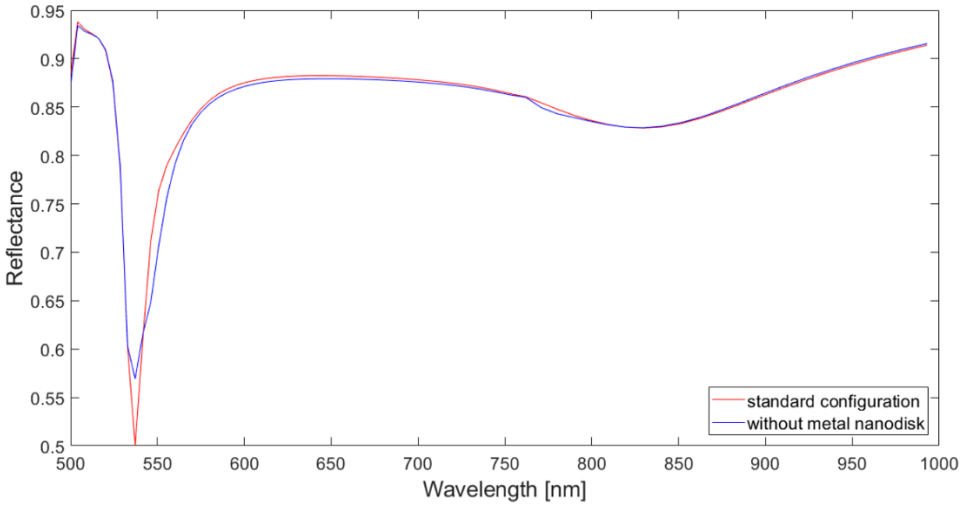

Figure S1. Calculated reflectance spectra for t_{bio} = 20 nm of 500 nm period Al/polymer plasmonic 2D crystals (d = 150 nm, h = 150 nm) with Al disks (red curve) and without Al disks (blue curve).

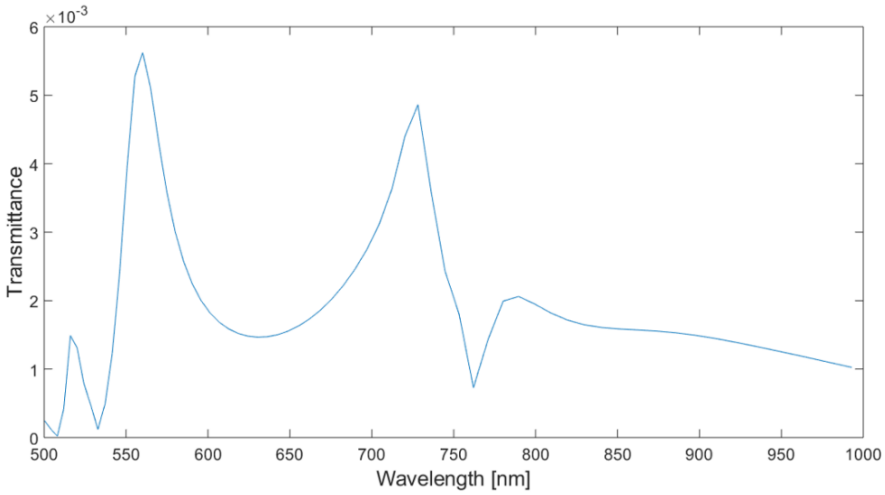

Figure S2. Calculated transmittance spectrum of a 500 nm period Al/polymer plasmonic 2D crystal for d = 150 nm and h = 150 nm. Transmittance values are two orders of magnitude smaller than reflectance values (Figure 2).

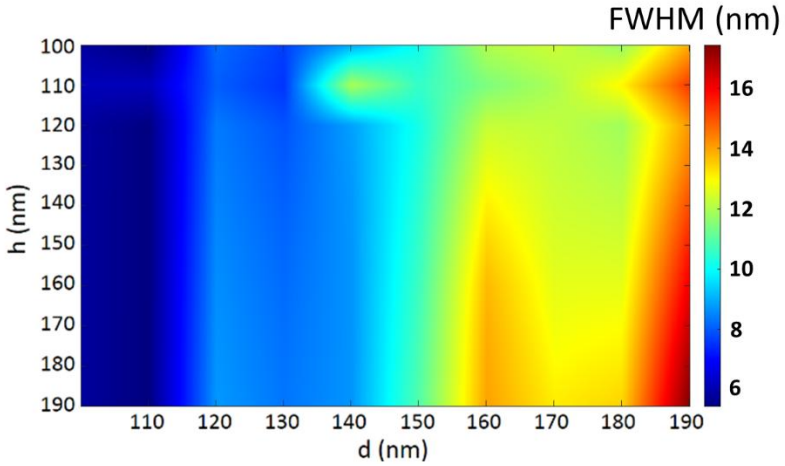

Figure S3. FWHM in nm of the studied Al/polymer 2D plasmonic crystal as a function of the design parameters *d* and *h*.

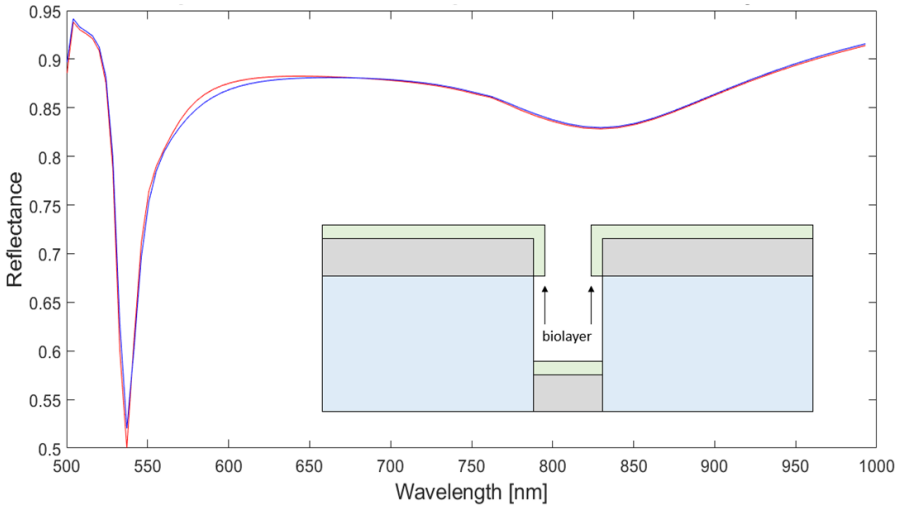

Figure S4. Reflectance spectra of a 500 nm period Al/polymer plasmonic 2D crystal (*d* = 150 nm, *h* = 150 nm) with (blue curve) a 20 nm thick biolayer conformally covering the nanohole Al sidewalls (inset) and without (red curve) such a biolayer sidewall region (Figure 1b). Biolayer sidewall contribution to the sensor performance is negligible.