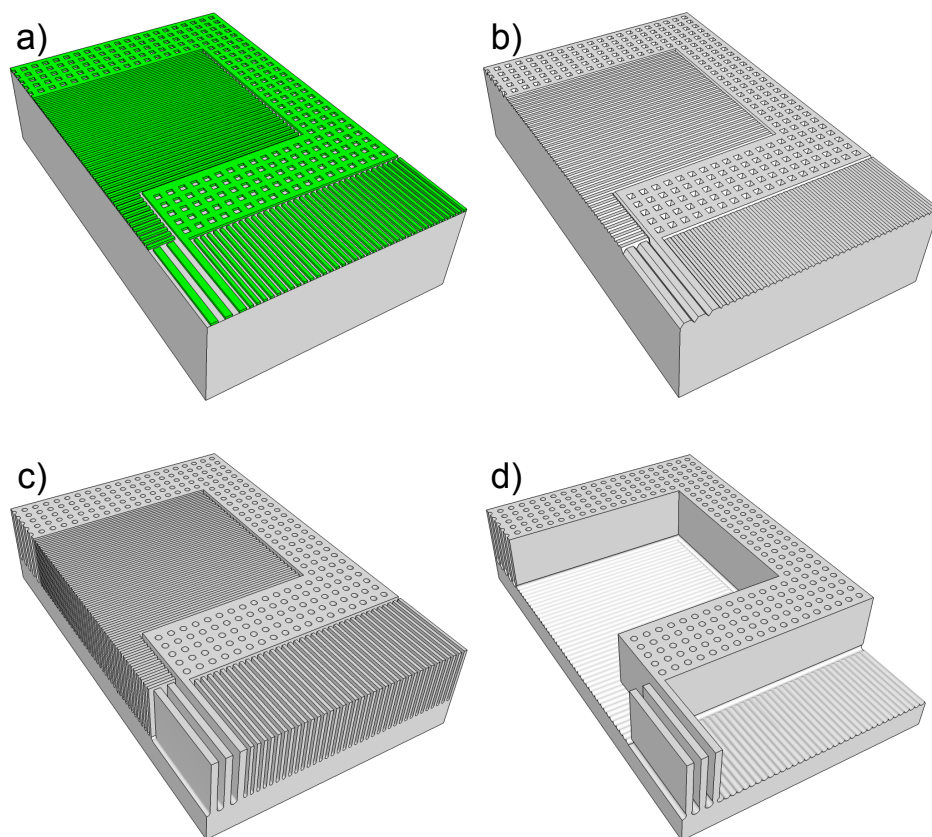


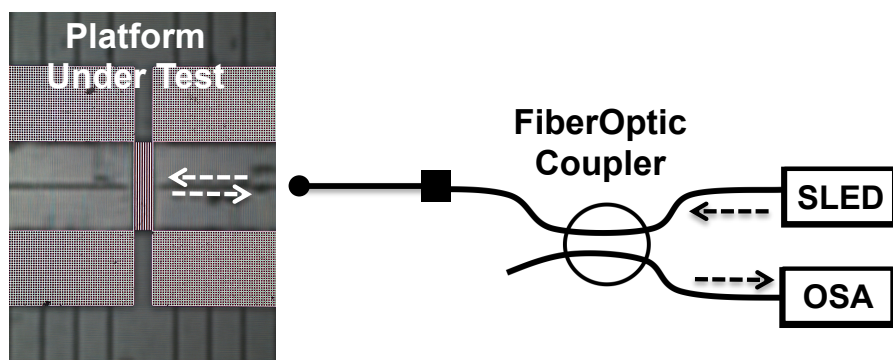
## Supporting Information

### Capillarity-Driven (Self-Powered) One-Dimensional Photonic Crystals for Refractometry and (Bio)sensing

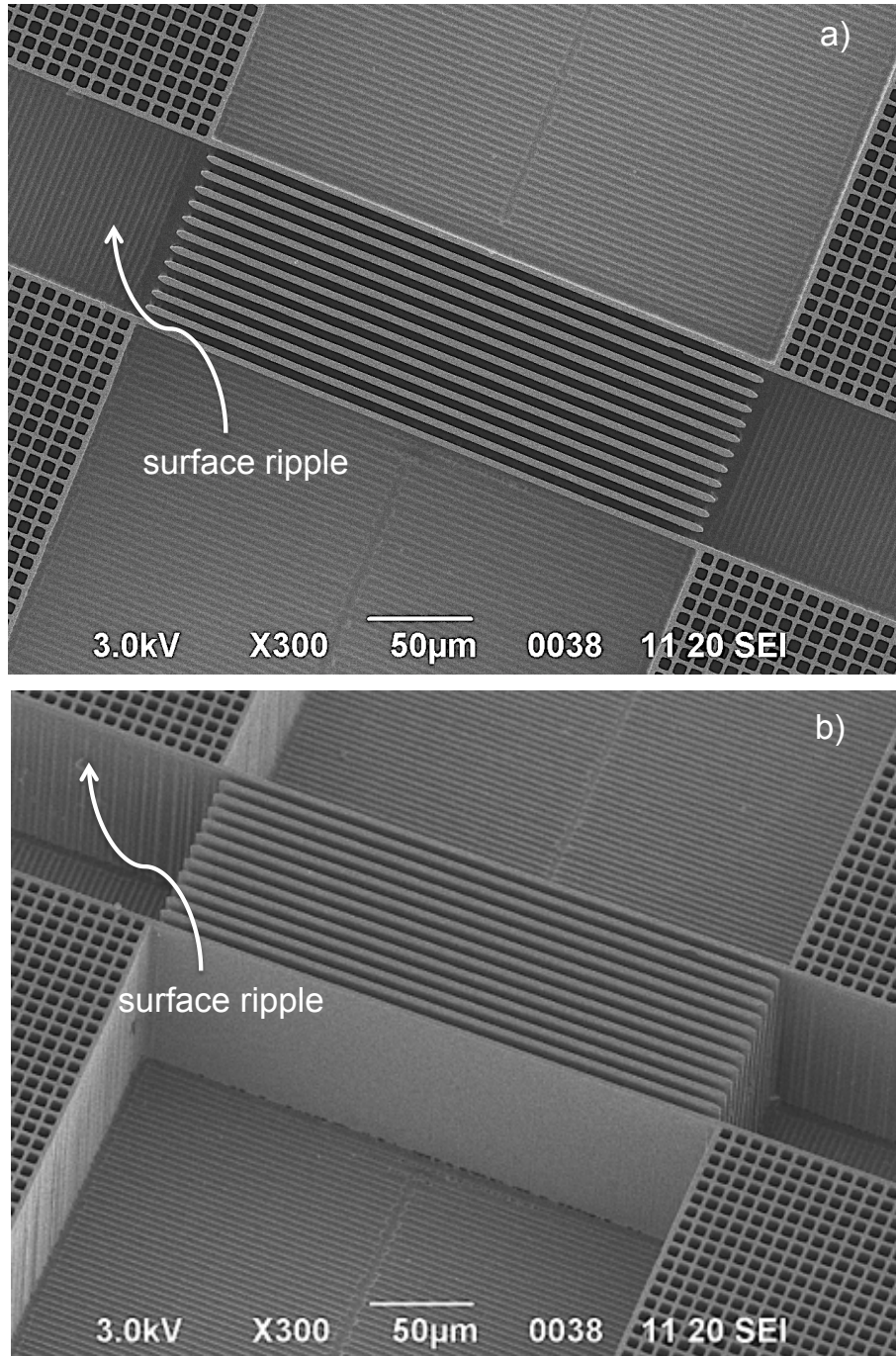
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**Figure S1.** Main technological steps for the ECM-fabrication of the self-powered drop-and-measure platform of this work. a) Pattern definition on a silicon dioxide layer by standard photolithography; b) Pattern replication onto the silicon surface by KOH etching (seed-formation); c) Anisotropic electrochemical deep-etching of the pattern for the microstructure fabrication; d) Isotropic electrochemical etching of the bottom of microfabricated structure for the release of the sacrificial structures.



**Figure S2.** Schematic of the fiber-optic setup used for carrying out the reflectivity measurements on the self-powered drop-and-measure platform. SLED: superluminescent diode used as optical source; OSA: optical spectrum analyzer.



**Figure S3.** Top-view (a) and bird-eye-view (b) SEM magnifications of the 1DPhC element of a self-powered drop-and-measure platform of this work fabricated by ECM technology, in which the artificial periodic ripple (peak-to-peak amplitude about 100 nm) presents on the bottom and side surfaces of both optical and fluidic paths, which is due to sacrificial structure removal during fabrication, can be appreciated. No ripple (surface roughness of about 10 nm) is present on the 1DPhC surfaces.