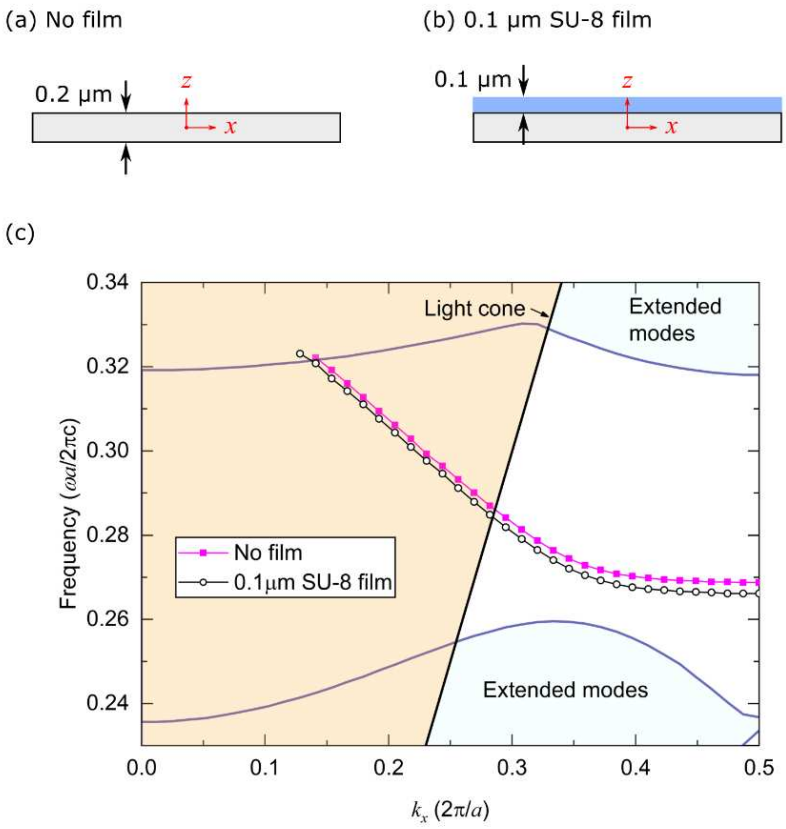
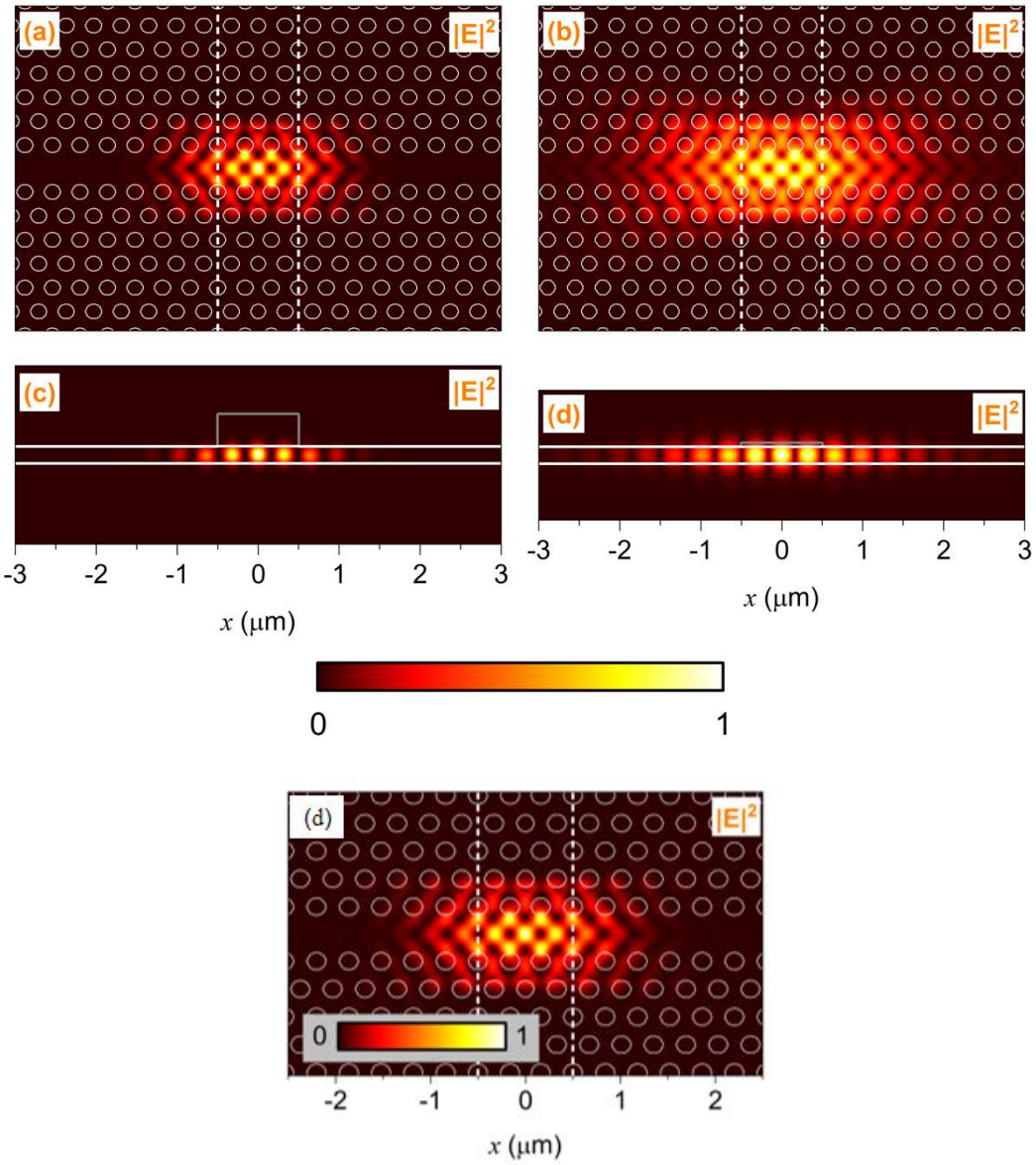
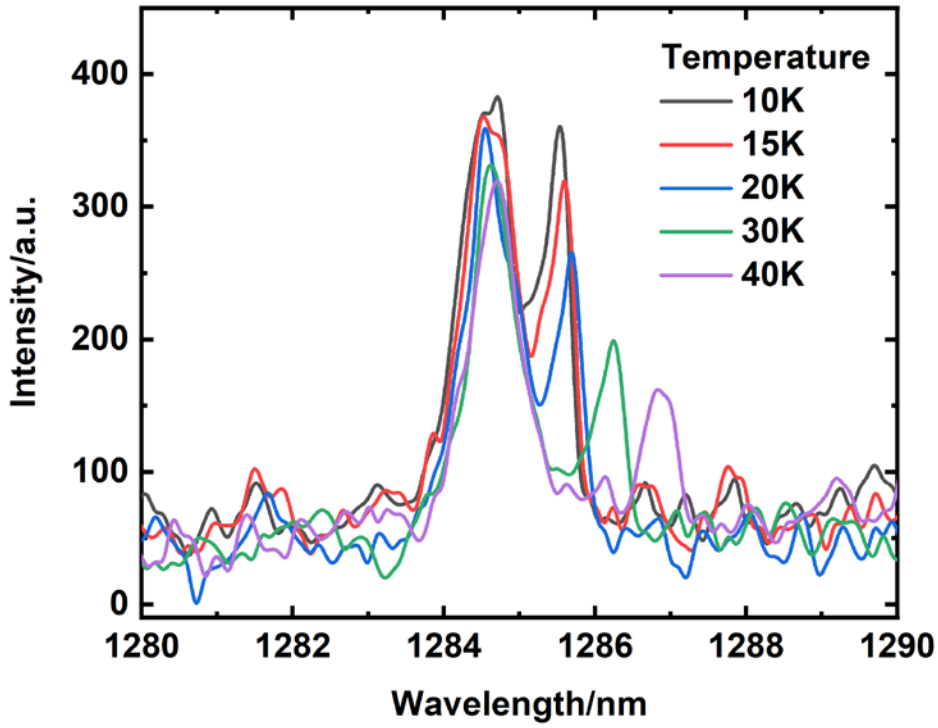
SUPPLEMENTARY INFORMATION



SFig. 1. Comparison of one band of a PhC waveguide with and without a layer of 0.1 μm thick cross-linked SU-8 on the top surface. (a) and (b): schematics of the side-profile of the simulated structures, without and with the film, respectively. (c) band extracted from the band structure simulations of the blank waveguide and with the SU-8 film. The band is shifted down in frequency by the film. Approximate locations of extended modes and band gap edges are shown, extracted from simulations of a blank PhC with no waveguide.



SFig. 2. Schematics of the SU-8 strip-defined mode gap cavity that FDTD simulations were performed of (a) and (b): side profile and top-down view of the device, which consists of a PhC waveguide with a strip of SU-8 placed on top. The strip is a cuboid with a width w_{strip} and height h_{strip}, which extends across the y-extent of the PhC and does not infiltrate the holes of the PhC. Note that the z-dimension in (a) is enlarged. (c) Simple representation of the mode gap confinement resulting from the SU-8 strip. (d) $|E|^2$ field envelope of the cavity mode



SFig3. PL temperature run of a second SU-8 cavity fabricated over another quantum dot showing some coupled emission at 10K, indicating the reproducibility of our technique.