

Supplementary Information for

A New Route for Fabricating Polymer Optical Microcavities

Zhang Zhang, † Ni Yao, † Jing Pan, Lei Zhang,* Wei Fang* and Limin Tong

State Key Laboratory of Modern Optical Instrumentation, College of Optical Science and
Engineering, Zhejiang University, Hangzhou, 310027

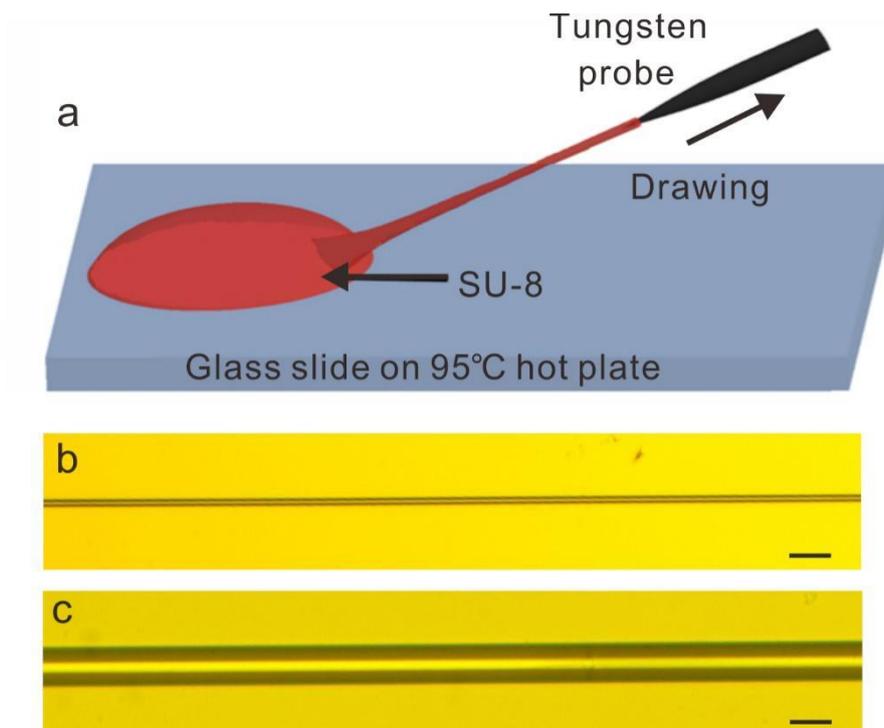


Fig. S1 Fabrication of SU-8 microwires. (a) Schematic illustration of fabricating SU-8 microwires drawing from heated SU-8 photoresist. (b, c) Optical images of as-fabricated SU-8 microwires with diameter of 12 μm (b) and 100 μm (c), respectively. Scale bars: 100 μm .

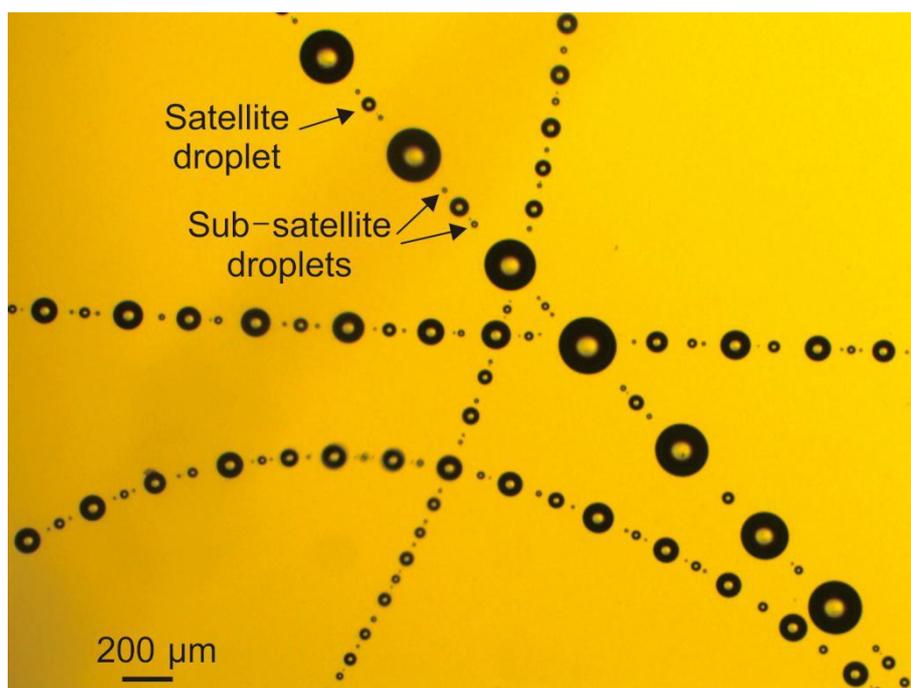


Fig. S2 Optical image of SU-8 droplets. Different sizes can be obtained by heating SU-8 microwires with different diameters. Satellite and sub-satellite droplets are labelled in the image.

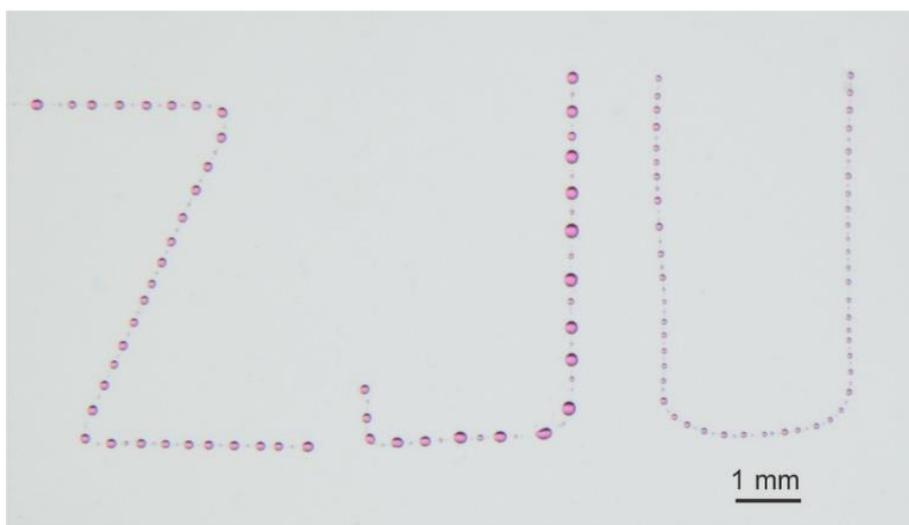


Fig. S3 Optical image of R6G doped SU-8 droplets with a pattern of “ZJU”.

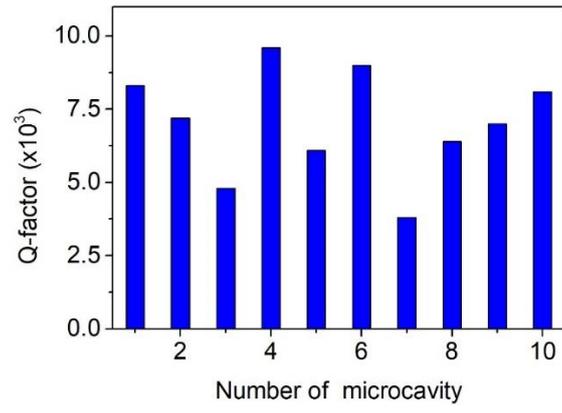


Fig. S4 Q factors of ten packaged microcavities ($\sim 100 \mu\text{m}$ in diameter).

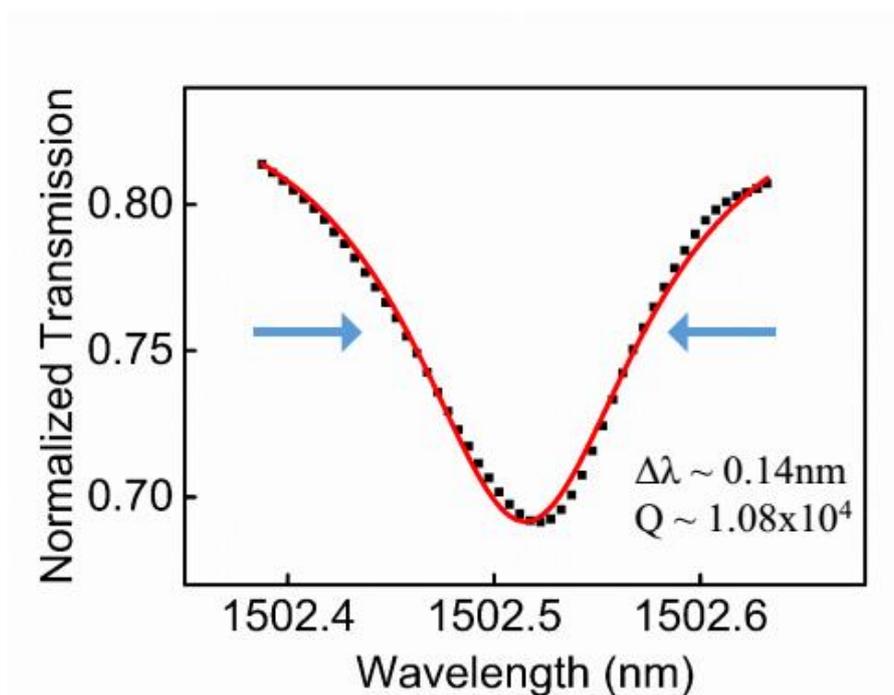


Fig. S5 The transmission spectrum of a high-quality mode together with a Lorentzian fit.

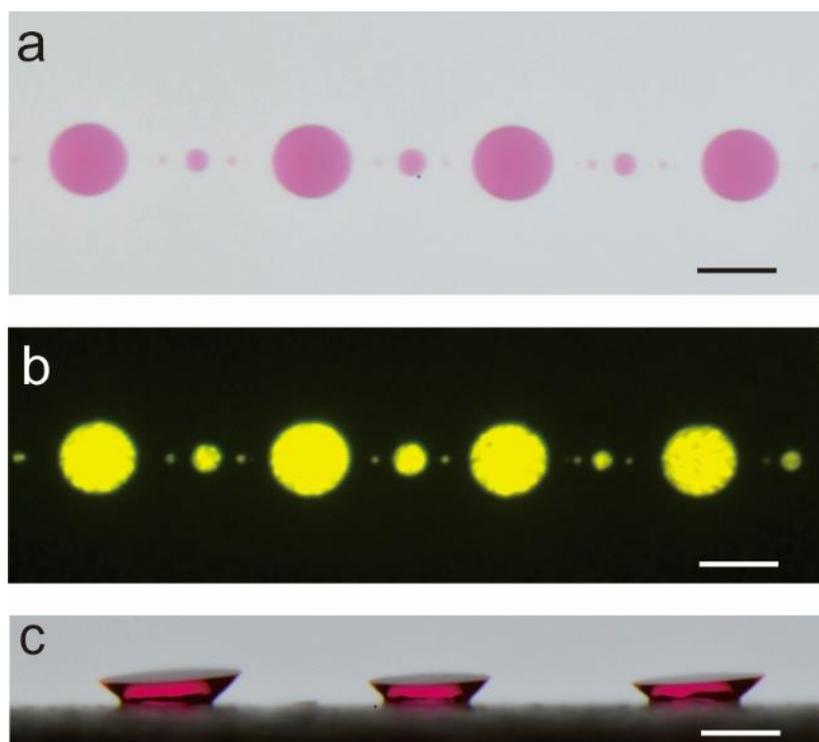


Fig. S6 (a) Optical image of R6G doped SU-8 droplets. (b) Fluorescent image of R6G doped SU-8 hemispheres. The R6G doped SU-8 hemispheres were illuminated by a 532-nm-wavelength laser from a single mode optical fiber, and the excitation light was eliminated by using a 550-nm-wavelength long pass filter. (c) Image of three SU-8 hemispheres doped with R6G which were peeled off from the PDMS substrate via micromanipulation. Scale bars: 100 μm .

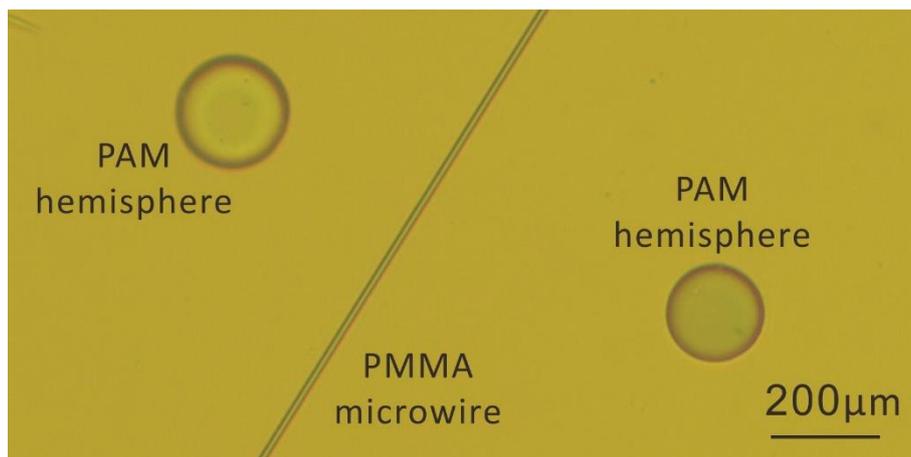


Fig. S7 Optical image of PMMA microwire and PAM hemispheres obtained by using the self-assembling method.