

Supporting Information

Imaging Single ZnO Vertical Nanowire Laser Cavities using UV-laser Scanning Confocal Microscopy

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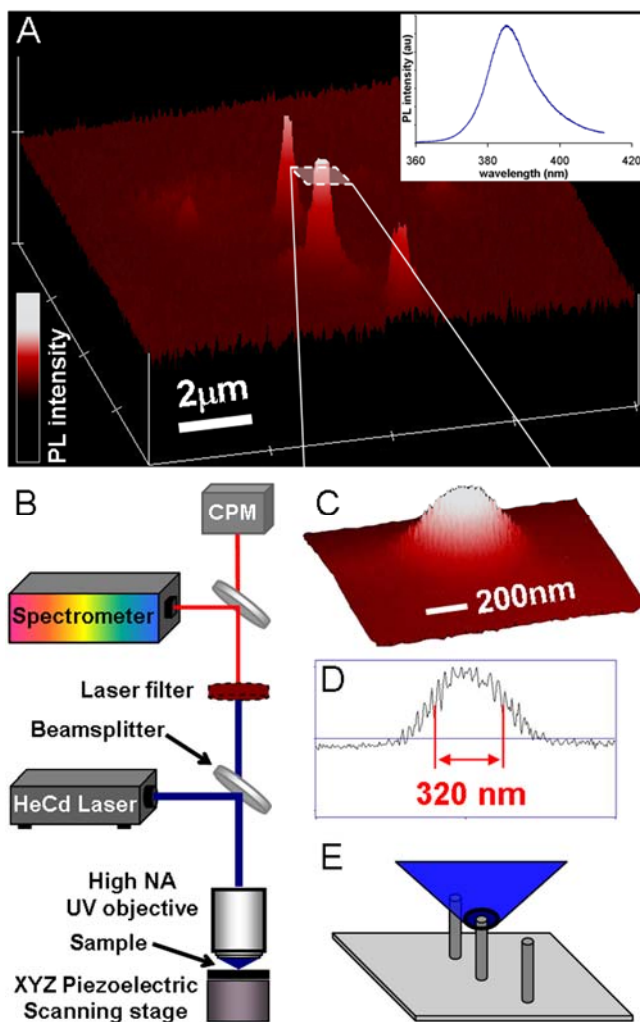


Figure S1. a) 3D-rendered scanning confocal PL image of ZnO vertical nanowire cavities. Inset: PL spectrum from single vertical nanowire by cw excitation at 325 nm. PL emission centered at 385 nm. b) Experimental setup of UV laser scanning confocal microscope. (details in text) c) 3D-rendered image of the PL collected from the tip of a single vertical nanowire. d) Cross-section analysis of PL intensity from image shown in (c). PL emission spot exhibits a FWHM of approximately 320 nm, which is the summation of the diffraction-limited laser spot ($\sim 220\text{ nm}$) and the ZnO vertical nanowire diameter ($\sim 100\text{ nm}$). e) Diagram showing excitation of individual ZnO vertical nanowire cavities on a sapphire substrate by a diffraction-limited laser spot.