Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

Asymmetric Plasmonic Induced Ionic Noise in Metallic Nanopores

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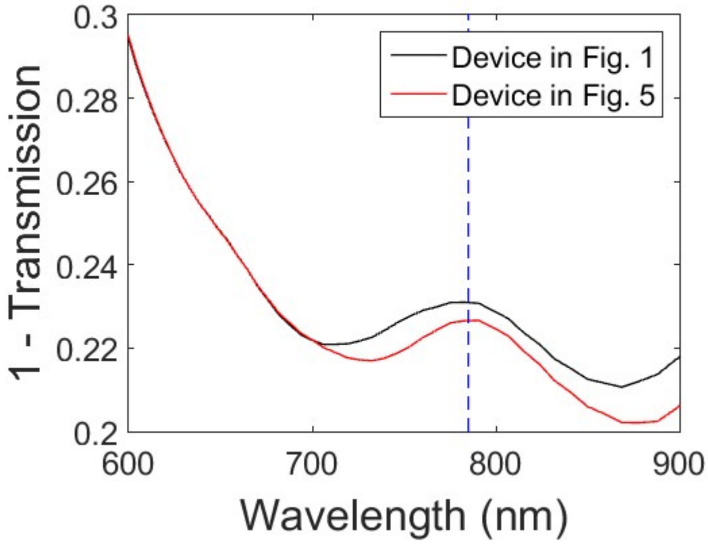

Figure S1. FDTD numerical simulation of the extinction results of nanopore devices in Figure 1 and 5. The dashed blue line indicates our laser excitation at 785 nm wavelength.

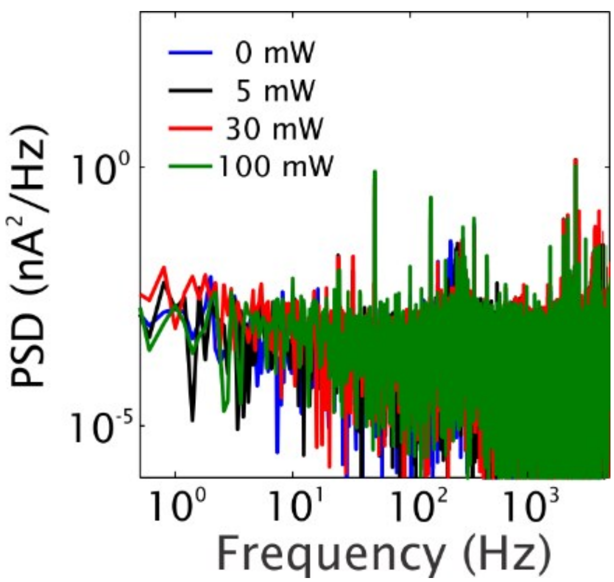

Figure S2. Laser noise measured by an ultra-high-speed photo-detector (Antel Optronics model AR-S2) at different laser powers.

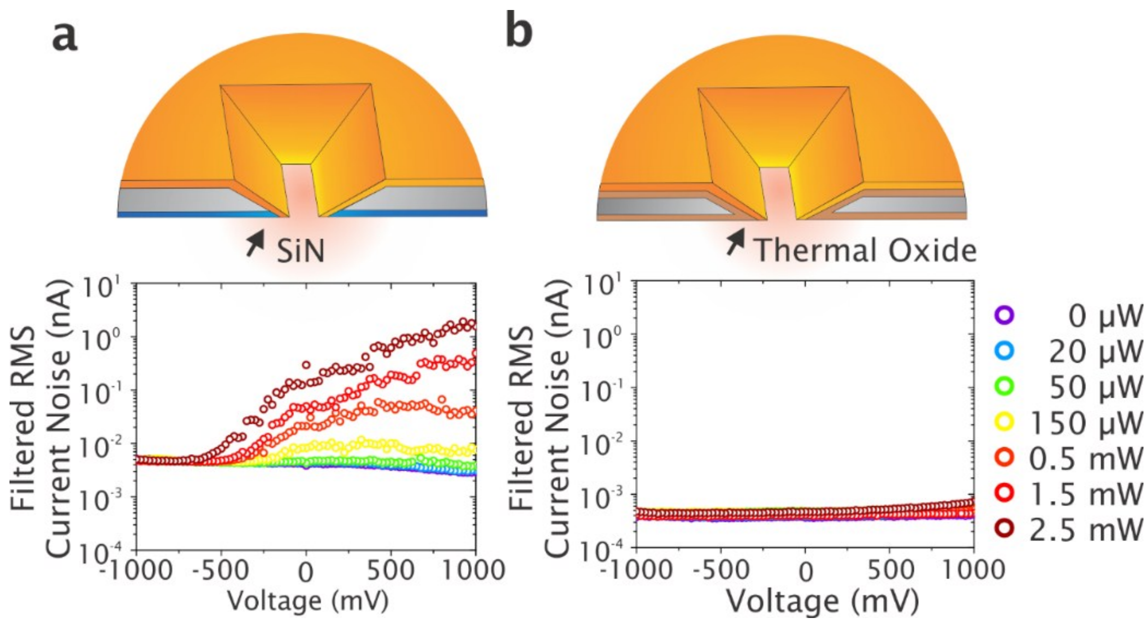

Figure S3. Current noise of gold nanocavities with different backside passivation methods. (a) Filtered current noise versus bias voltage of a gold nanocavity with 50 nm PECVD SiN onto the backside. (b) Filtered current noise versus bias voltage of gold coated thermally oxidized nanocavity (thermal SiO_2 is about 77 nm thick). The band-pass filter was set from 50 Hz to 1 k Hz.