## **Supplementary Information**

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Fig. S1 (a) Mesh used for FDTD calculation in which 514-nm vertical polarization excites Ag nanodimer with diameter of 20 nm and gap of 1 nm. The mesh sizes were set to be 0.1, 0.25, and 0.5 nm around, inside, and outside a gap of Ag nanodimer, respectively. (b) Spatial distribution of calculated EM field using 0.1 nm mesh around gap of Ag nanodimer. (c) Calculated intensity of EM field along a tangential line on the surface at the closest distance of the gap, namely, a white broken line in (b).