

Electronic Supplementary Information for

Strong magnetic resonances and largely enhanced second-harmonic generation of colloidal MoS₂ and ReS₂@Au nanoantennas with assembled 2D nanosheets

Si-Jing Ding, Zhi-Jun Luo, Ya-Ming Xie, Gui-Ming Pan, Yun-Hang Qiu, Kai Chen, Li Zhou, Jianfang Wang, Hai-Qing Lin,* Qu-Quan Wang**

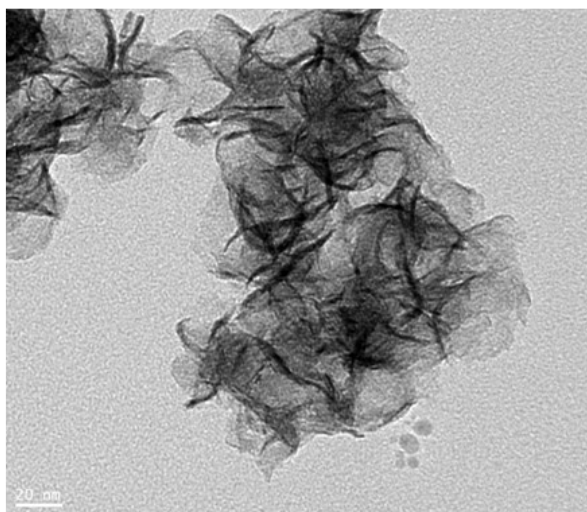


Figure S1. TEM image of ReS₂ nanodisks. The average lateral size is ~60 nm.

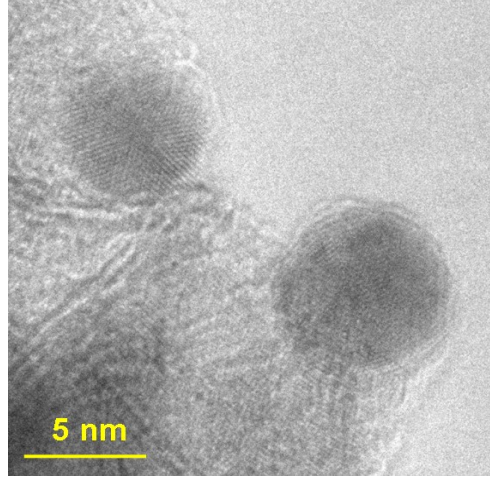


Figure S2. HRTEM image of Au nanoparticles growth on the ReS2 nanospheres. The average diameter of Au nanoparticles ~ 8 nm.

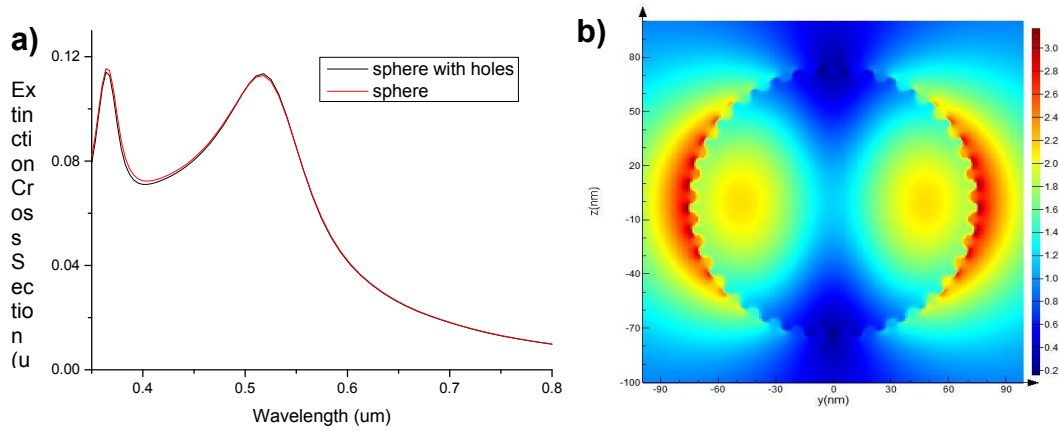


Figure S3. **a)** Calculated extinction spectrum of a solid dielectric sphere with and without nanoholes on the surface. **b)** Local field distribution of the dielectric sphere with nanoholes on the surface. The nanoholes on the surface lead to slight increase of dipole resonance and prominent increase of local field on the dielectric surface.