

Supporting Information

Formation of Rectangle-Shape Pd /Au Bimetallic Nanorods: Evidence for Competing Growth of Pd Shell between {110} and {100} Side Facets of Au Nanorods

Yanjuan Xiang[†], Xiaochun Wu^{‡}, Dongfang Liu[†], Xingyu Jiang[‡], Weiguo Chu[‡],*

Zhiyuan Li[†], Yuan Ma[§], Weiya Zhou[†], and Sishen Xie^{†}*

[†] Beijing National Laboratory for Condensed Matter Physics, Institute of Physics,
Graduate School of the Chinese Academy of Sciences, Beijing 100080, P. R. China

[‡] National Center for Nanoscience and Nanotechnology, Beijing 100080, P. R. China

[§]Electronmicroscopy Laboratory, Peking University, Beijing 100871, P. R. China

*Corresponding author. Email: wuxc@nanoctr.cn, ssxie@aphy.iphy.ac.cn

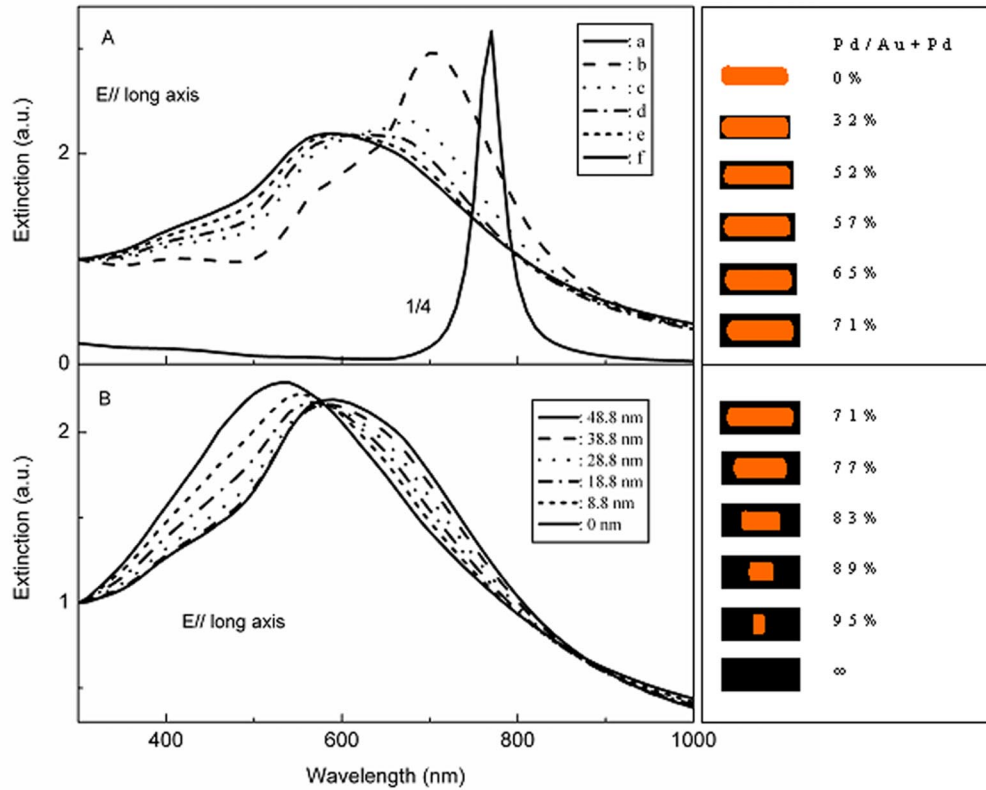


Figure S1. Figure caption. (A) Calculated LSPR extinction spectra of (a) a pure gold nanorod and (b-f) Pd-coated gold nanorods. The conditions are the same as Figure 3B. (B) Calculated LSPR extinction spectra of the bimetallic nanorods by fixing the overall aspect ratio at 2.4 and by decreasing the length of the Au core from 48.8, 38.8, 28.8, 18.8 to 0 nm. The morphology of the bimetallic nanorod and the calculated molar fraction of Pd in the corresponding nanorod by using their sizes are shown in the right panel. Each spectrum is normalized by its absorption at 300 nm.