SUPPORTING INFORMATION

Facile Fabrication of Branched Gold Nanoparticles by Reductive Hydroxylphenol Derivatives

Yuhan Lee, Tae Gwan Park[*]

Department of Biological Sciences and Graduate School of Nanoscience and Technology

Korea Advanced Institute of Science and Technology Daejeon 305-701, Republic of Korea

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Corresponding Author: T. G. Park

Tel: +82-42-350-2621

Fax: +82-42-350-2610

E-mail address: tgpark@kaist.ac.kr (T. G. Park)

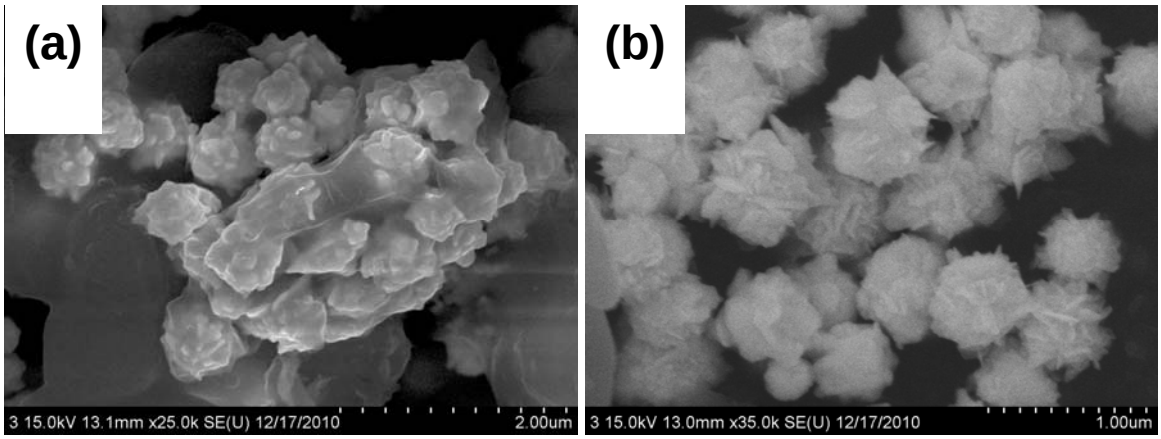

Figure S1. FE-SEM images of branched AuNPs fabricated using (a) benzene-1,2,3-triol, and (b) benzene-1,2-diol.

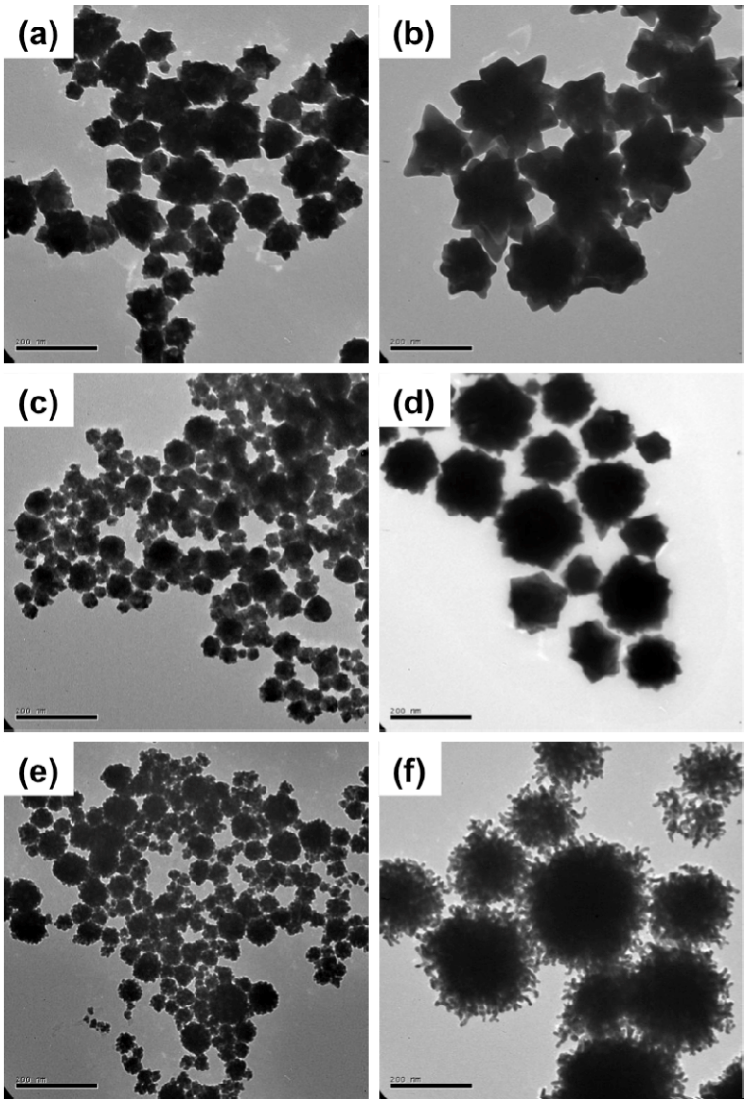

Figure S2. TEM images of gold nanoparticles fabricated by (a) bezene-1,2,3-triol, (b) benzene-1,4-diol, (c) benzene-1,2,4-triol, (d) benzene-1,2-diol, (e) benzene-1,3,5-triol, and (f) benzene-1,3-diol. Scale bar: 200 nm.

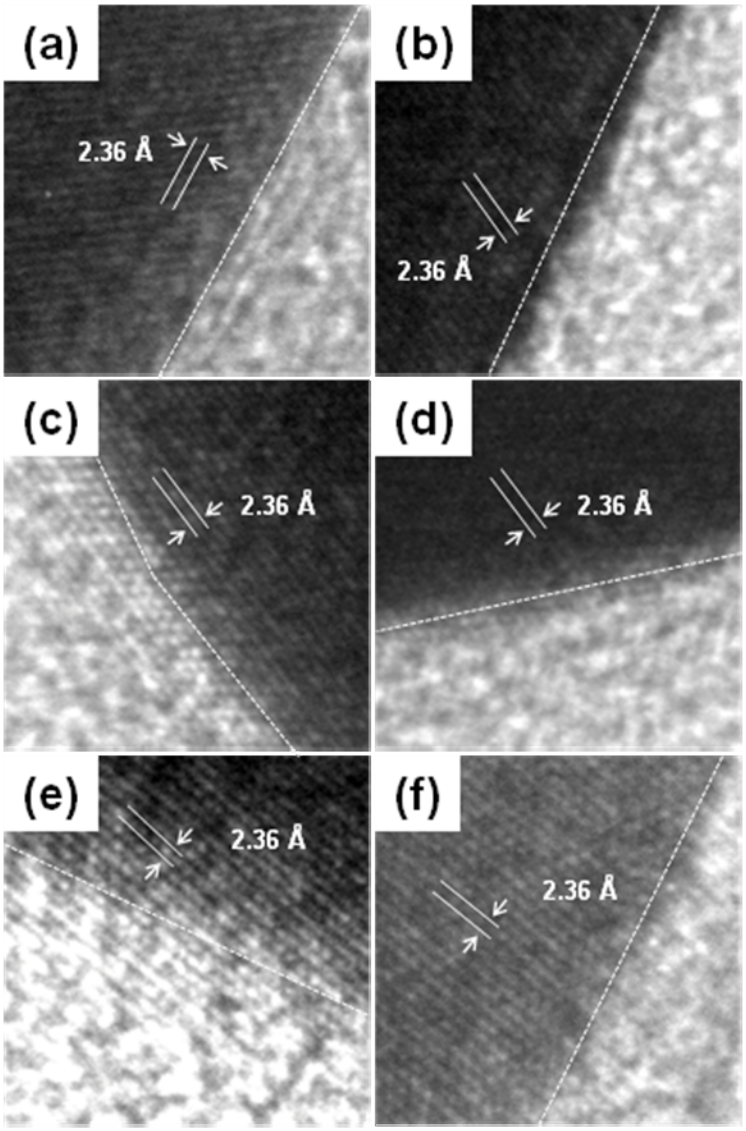

Figure S3. High-resolution transmission electron microscopy (HR-TEM) images of various facets of branched gold nanoparticles fabricated by hydroxyphenols.

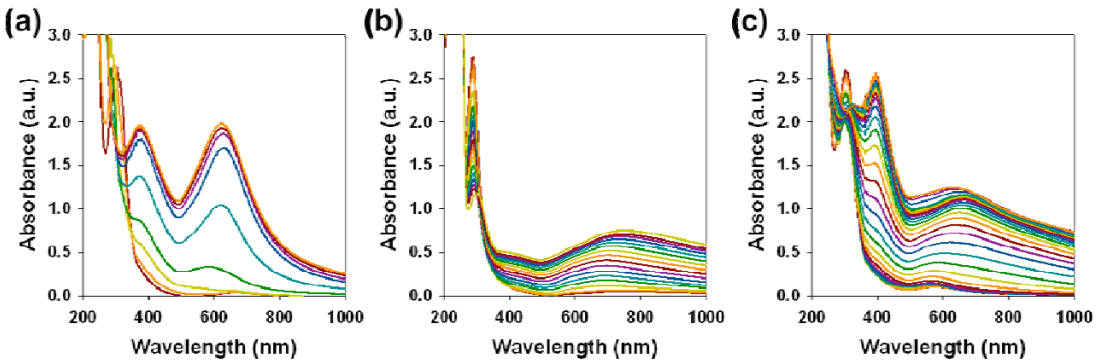

Figure S4. Kinetic analysis of gold nanoparticle fabrication process using UV-Vis spectroscopy. Each UV-Vis spectrum was observed every 1 sec. (a) benzene-1,2,4-triol, (b) hydroxyquinone, and (c) benzene-1,2,3-triol.

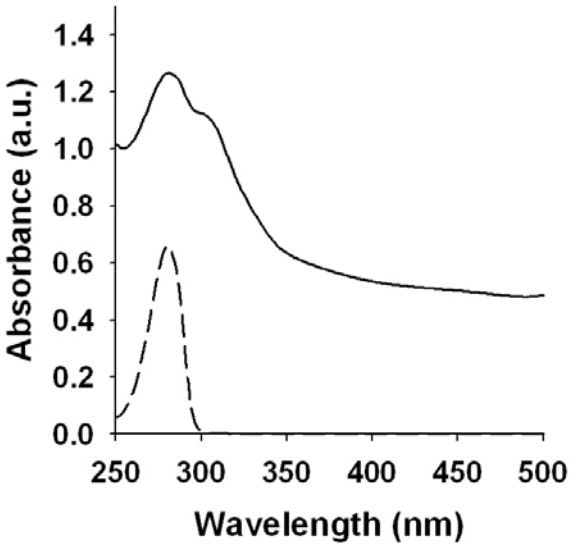

Figure S5. UV-vis spectrum of (a) dopamine solution in DDW, and (b) reaction product of Au(III) and dopamine in DDW.