Electronic supplementary information

Heterogemini surfactant assisted synthesis of monodisperse icosahedral gold nanocrystals and their applications in electrochemical biosensing

Liming Chen, ‡[a, b] Anirban Dandapat, ‡[c] Youju Huang, *[b] Liping Song, [b] Lei Zhang, [b] Jiawei Zhang, [b] Yoel Sasson,[c] Linxi Hou,*[a] and Tao Chen *[b]

[a] Department of Materials-Oriented Chemical Engineering, College of Chemical Engineering, Fuzhou University, 2 Xueyuan load, Fuzhou, 350108, China.

[b] Key Laboratory of Marine Materials and Related Technologies, Division of Polymer and Composite Materials, Ningbo Institute of Material Technology and Engineering, Chinese Academy of Science, 1219 Zhongguan West Road, Ningbo 315201, China.

[C] Casali Center of Applied Chemistry, Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem 91904, Israel

‡ These authors contribute equally to this work.

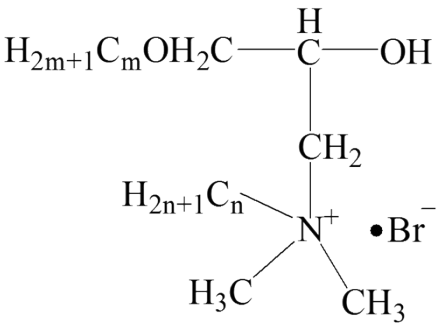

Fig. S1. Chemical structures of C_mOhpNC_n (m=10, n=8).

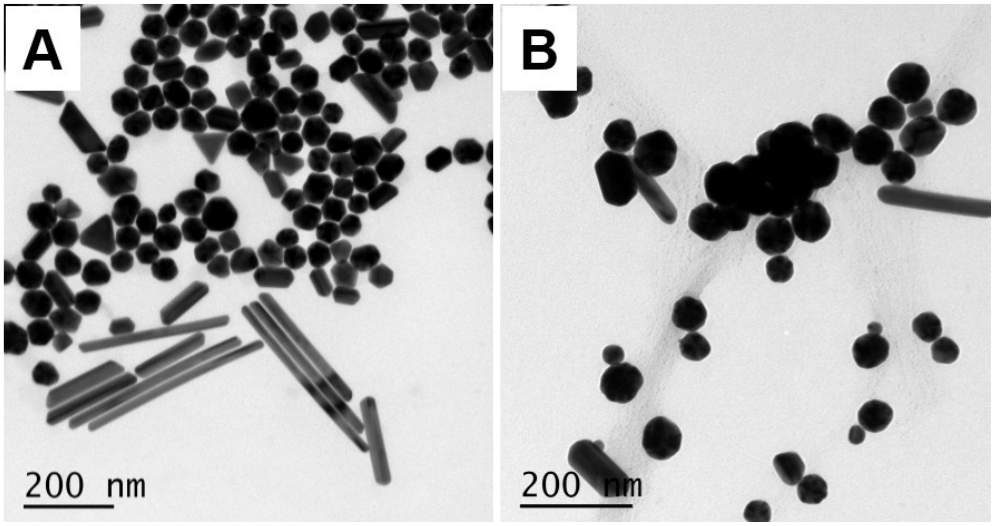

Figure S2. Representative TEM images of the icosahedral Au NCs obtained with (A) 0.05 M and (B) 0.01 M heterogemini surfactant ($C_{10}OhpNC_8$) mixed with 0.5 mL 12 nm seeds.

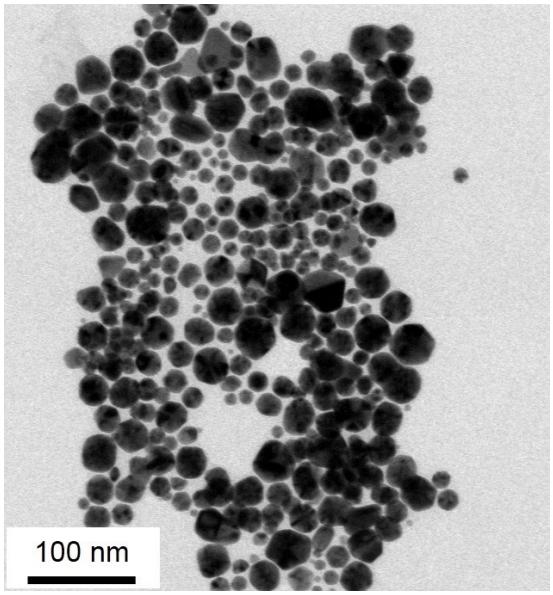

Fig. S3. Representative TEM images of the icosahedral Au NCs obtained with 50 mg PVP and 0.5 mL 12 nm seeds.

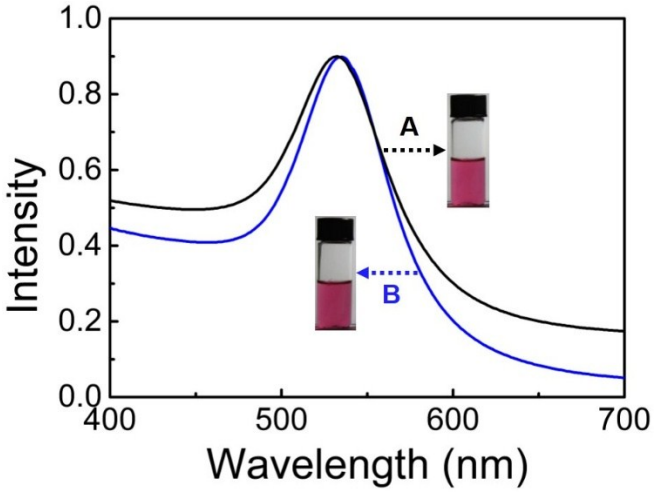

Fig. S4. UV–vis-NIR absorption spectra of icosahedral Au NCs colloids using (A) $C_{10}OhpNC_8$ and (B) $C_{10}OhpNC_8$ /PVP as surfactants in growth solution