Supplementary Materials

Biosynthesized Highly Stable Au/C Nanodots: Ideal Probes for Selective and Sensitive Detection of Hg²⁺ Ions

Sada Venkateswarlu^{1,†}, Saravanan Govindaraju^{2,4†}, Roopkumar Sangubotla³, Jongsung Kim³, Min-Ho Lee^{4, *}, Kyusik Yun^{2, *}

¹ Department of Nanochemistry, Gachon University, Gyeonggi-do 13120, Republic of

Korea; venkisada67@gmail.com (S.V.)

- ² Department of Bionanotechnology, Gachon University, Gyeonggi-do, 13120, Republic of Korea; biovijaysaran@gmail.com (S.G.); ykyusik@gachon.ac.kr (K.Y)
- ³ Department of Chemical and Biological Engineering, Gachon University, 1342 Seongnam Daero, Seongnam-Si, Gyeonggi-do, 13120, Republic of Korea. gachonroop@gmail.com (R.S); jongkim@gachon.ac.kr (J.K)
- 4 School of Integrative Engineering, Chung-Ang University, Seoul 06974, Republic of Korea; mhlee7@cau.ac.kr (M.H.L.)
- [†] The authors are equally contributed
- * Correspondence: mhlee7@cau.ac.kr (M.H.L.), ykyusik@gachon.ac.kr (K.Y)



Figure S1 FT-IR spectra of red onion leaves extract obtained from (i) Daegu and (ii)

Incheon, South Korea.



Figure S2 UV-Vis absorption spectra of red onion leaves extract obtained from (i) Daegu and (ii) Incheon, South Korea.



Figure S3 UV-Vis absorption spectra of GCNDs prepared using by red onion leaves extract obtained from (i) Daegu and (ii) Incheon, South Korea.



Figure S4 Hg²⁺ ion sensing by GCNDs prepared using by red onion leaves extract obtained from a) Daegu and b) Incheon, South Korea.