Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

SERS Detection of Dopamine using Metal-Chelated Ag Nanoshell

Mingyeong Kim,‡[a] Yun Sik Choi‡[a] and Dae Hong Jeong*[a, b]

[a] Department of Chemistry Education, Seoul National University, Seoul 151-742, Republic of Korea†

[b] Center for Educational Research, Seoul National University, Seoul 08826, Republic of Korea†

*Corresponding author Email address: jeongdh@snu.ac.kr

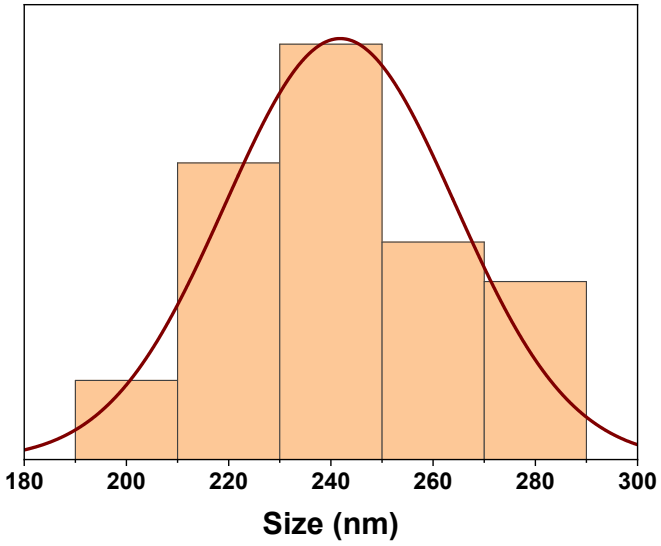

Fig. S1 Size distribution of AgNS with the average of 241 nm (SD : 22.5 nm)

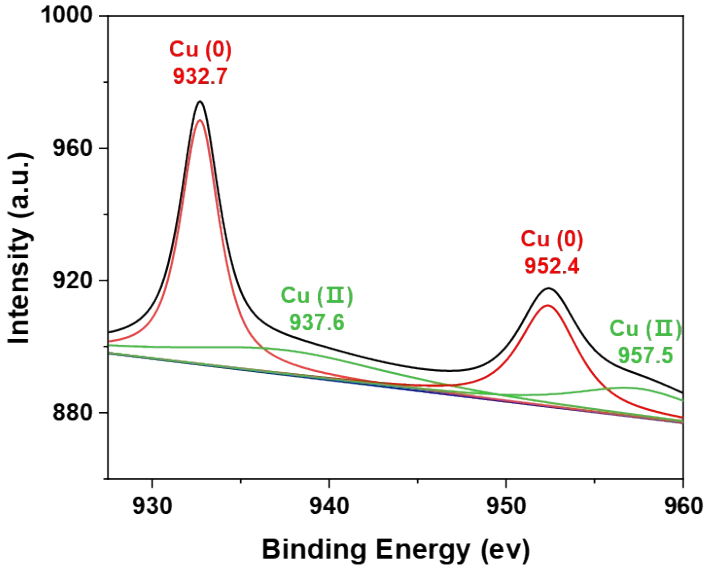

Fig. S2 XPS spectrum of AgNS@PVA@Cu. Red curves are corresponding to deconvoluted peaks of Cu (0), while green curves are corresponding to deconvoluted peaks of Cu (II).

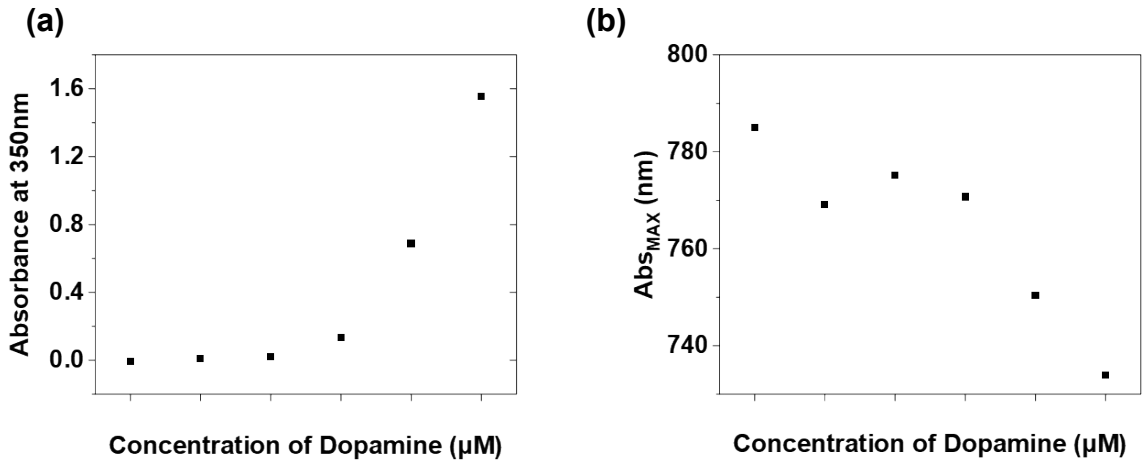

Figure S3. (a) Absorption intensity increasement at 350 nm (b) Decreasement of maximum peak position from 785 nm to 734 nm

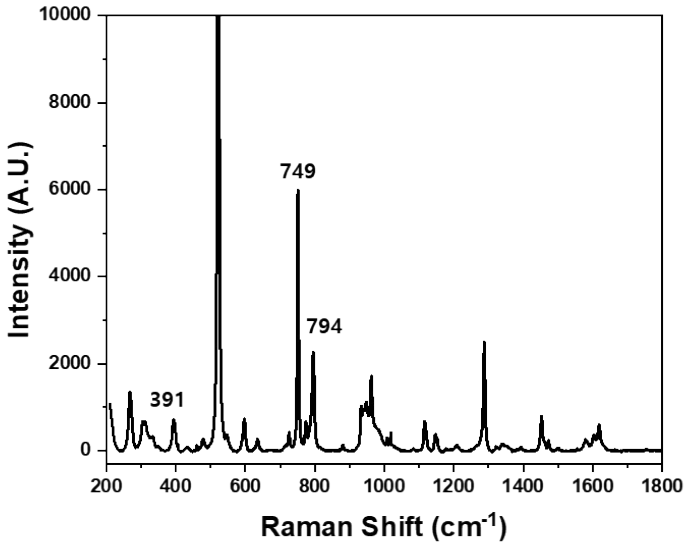

Figure S4. Normal raman spectrum of dopamine.

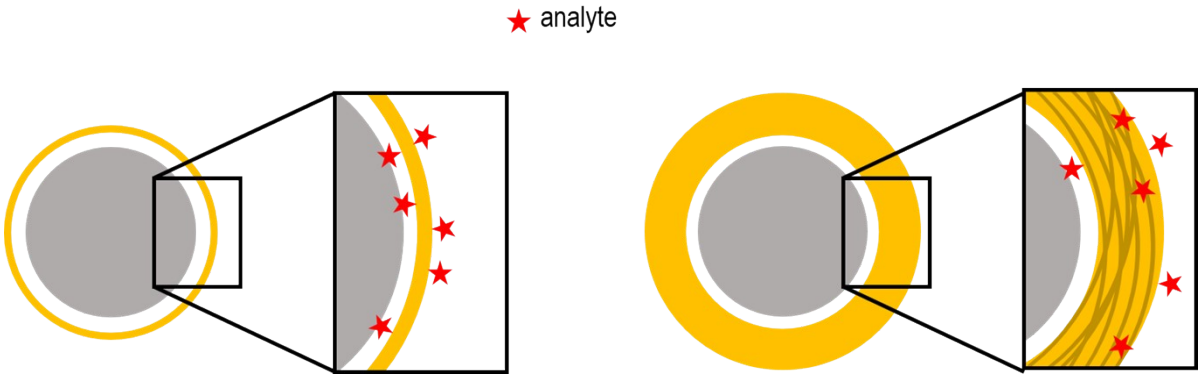

Fig. S5 Schematic illustration of effect of thickness of PVA polymer for detection.

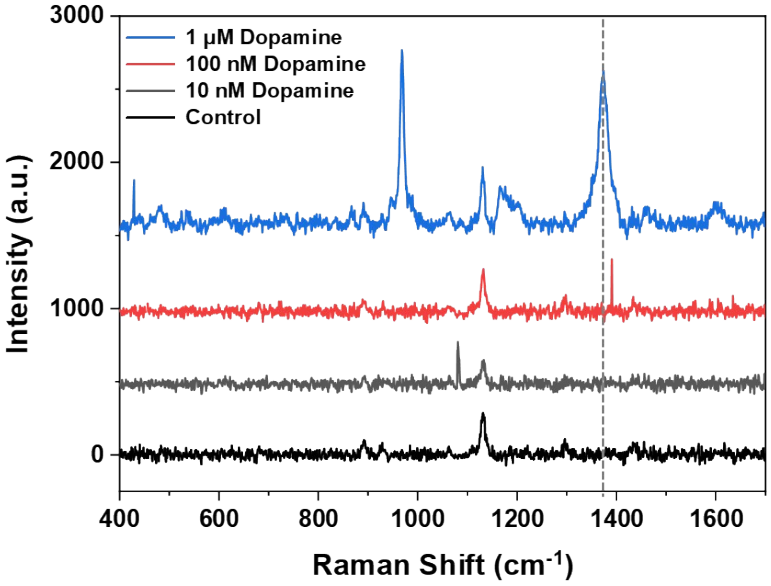

Fig. S6 Dopamine detection at low concentration with AgNS@PVA@Cu