

Electronic Supplementary Information for
Controlled Deposition of Au on (BiO)₂CO₃ Microspheres:
Size and Content of Au Nanoparticles Matter

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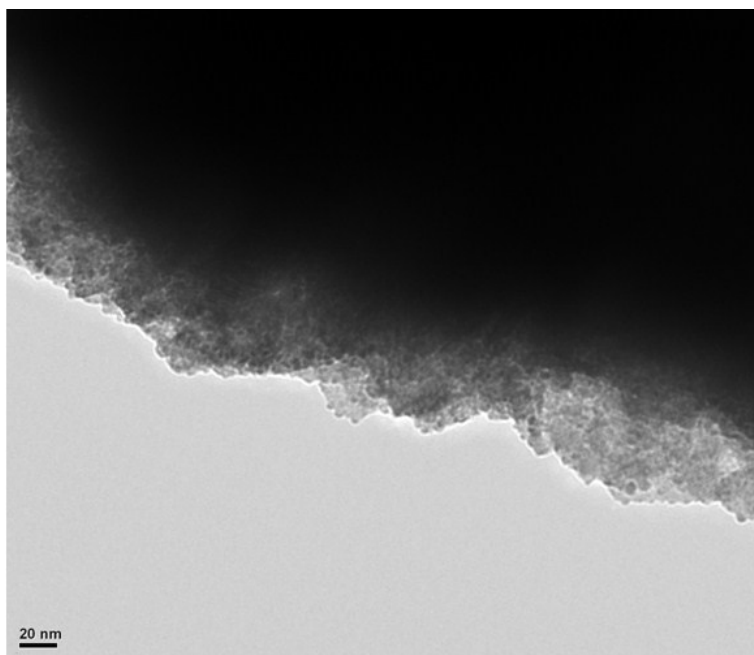


Fig. S1 Enlarged TEM view of Au/BOC-1 (4ml)

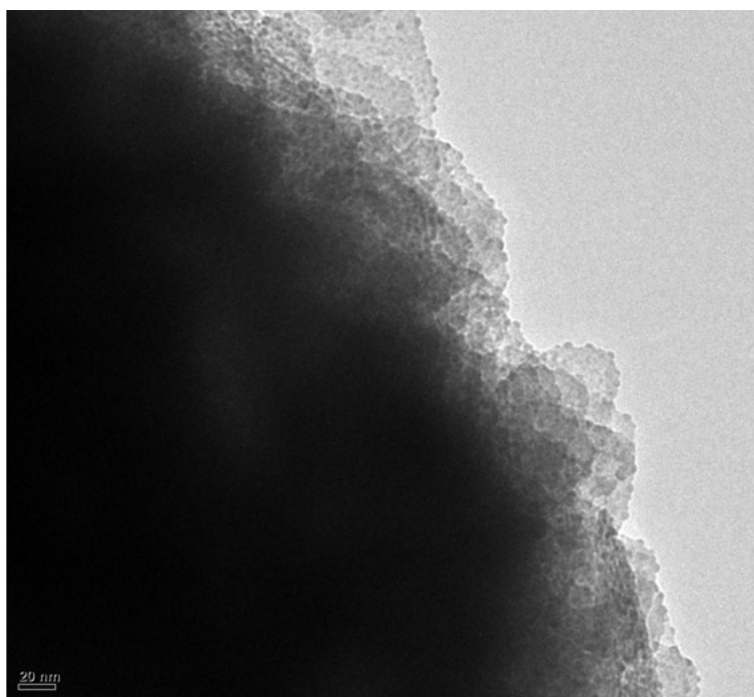


Fig. S2 Enlarged TEM view of Au/BOC-2

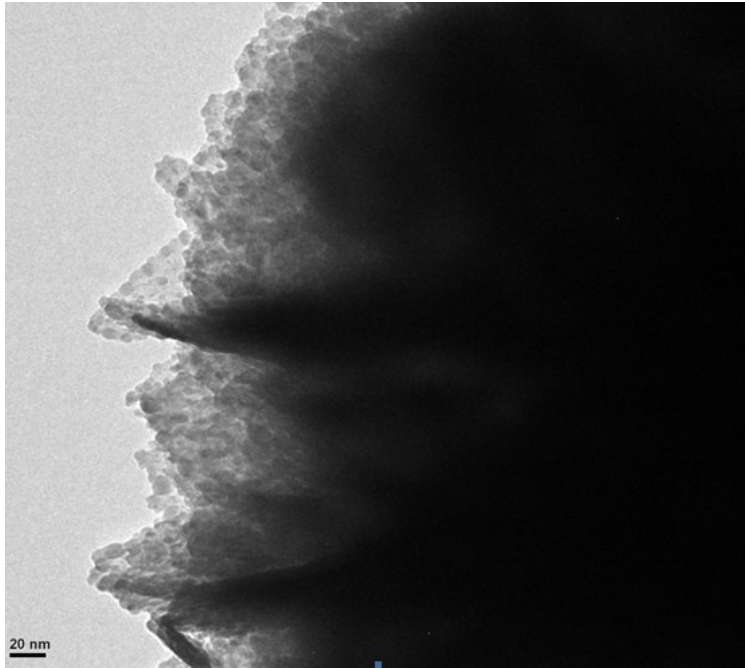


Fig. S3 Enlarged TEM view of Au/BOC-3



Fig. S4 Enlarged TEM view Au/BOC composites with 2 ml Au NPs content

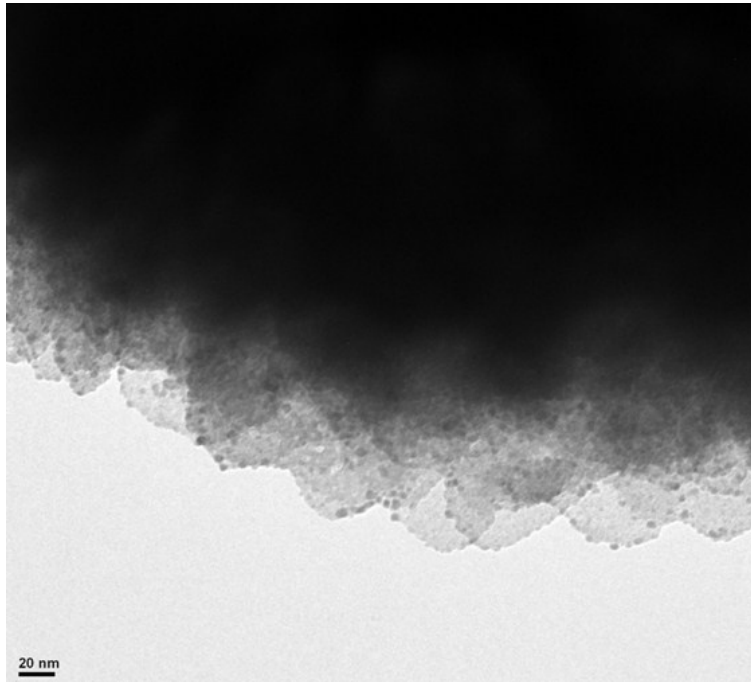


Fig. S5 Enlarged TEM view Au/BOC composites with 8 ml Au NPs content

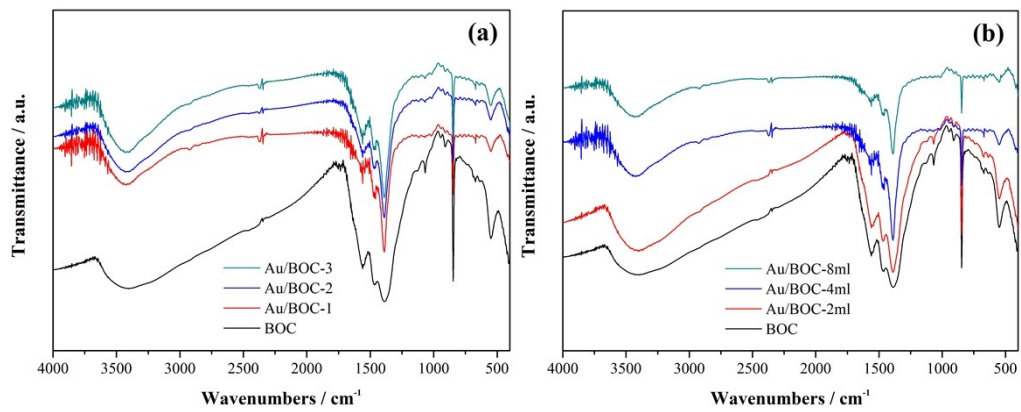


Fig. S6 FT-IR spectra of as-prepared BOC and Au/BOC composites.

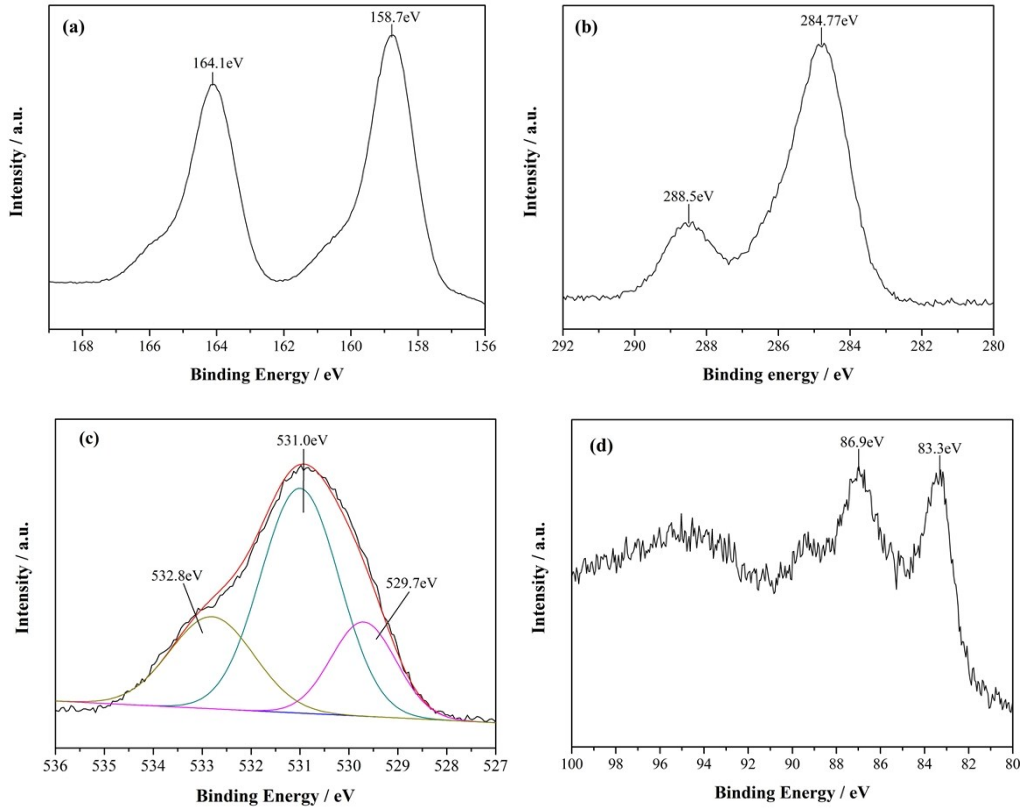


Fig. S7 XPS spectra of Au/BOC-8ml, Bi4f (a), C1s (b), O1s (c) and Au4f (d).

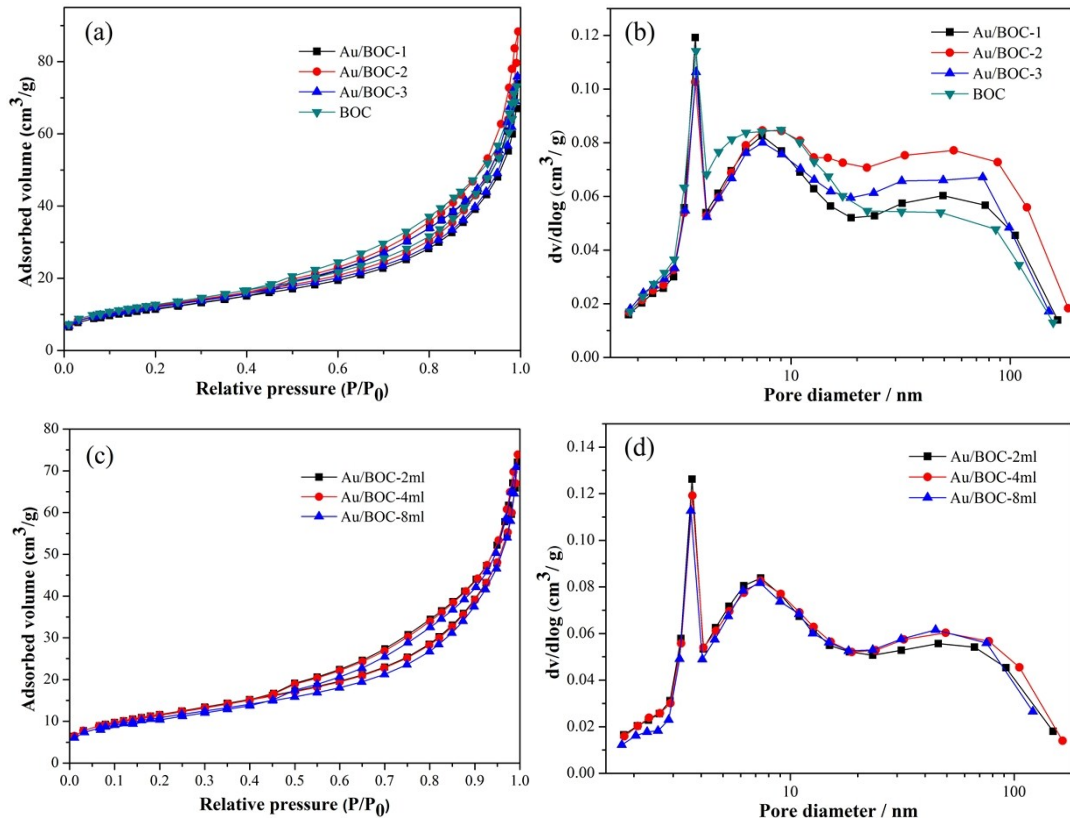


Fig. S8 N_2 adsorption-desorption isotherms (a, c) and pore size distribution curves (b, d) of BOC and Au/BOC composites.

Table S1 BET surface area (S_{BET}) and pore volume (V) for six samples studied in this work.

Sample	DDT (ml)	Au (ml)	S_{BET} (m ² /g)	V (cm ³ /g)
BOC	-	-	46	0.1134
Au/BOC-1 (Au/BOC-4 mL)	0.82	4	42	0.1143
Au/BOC-2	0.42	4	45	0.1367
Au/BOC-3	0.082	4	43	0.1174
Au/BOC-2 mL	0.82	2	42	0.1115
Au/BOC-8 mL	0.82	8	40	0.1096

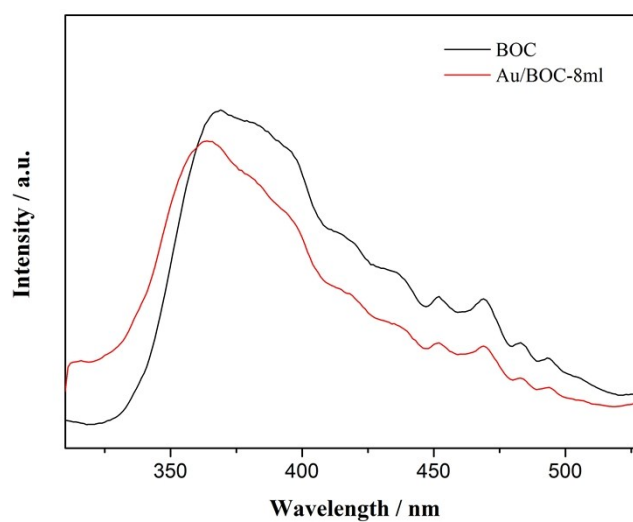


Fig. S9 PL spectrum of BOC and Au/BOC composites.