

Enhanced conversion and stability of biosynthetic selenium nanoparticles using fetal bovine serum

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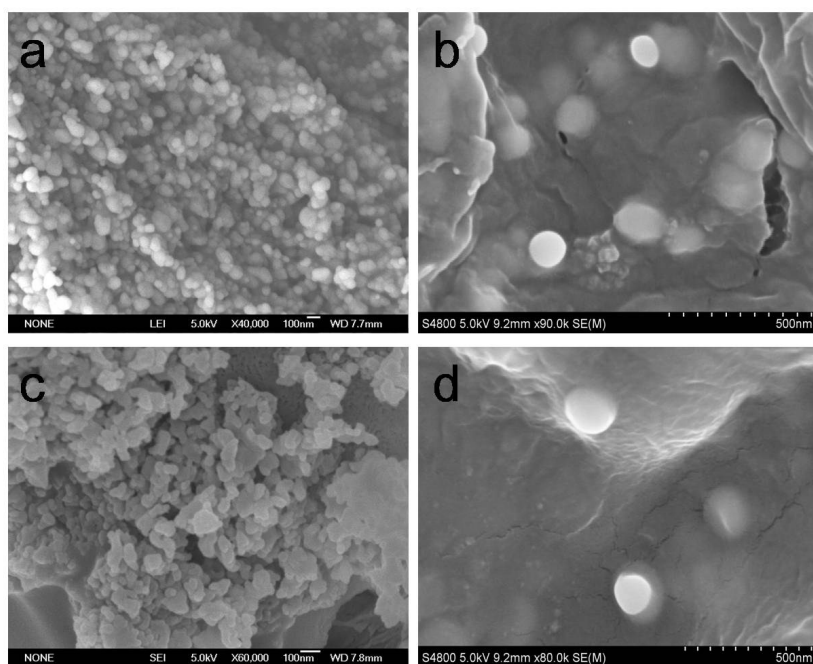


Fig. S1 The SEM images of FBS-BioSeNPs (a, b) and LB-BioSeNPs (c, d)

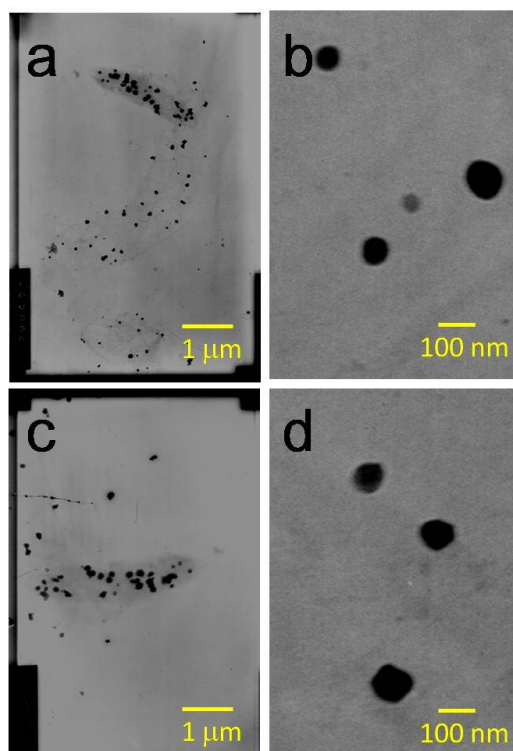


Fig. S2 The TEM images of FBS-BioSeNPs (a, b) and LB-BioSeNPs (c, d)

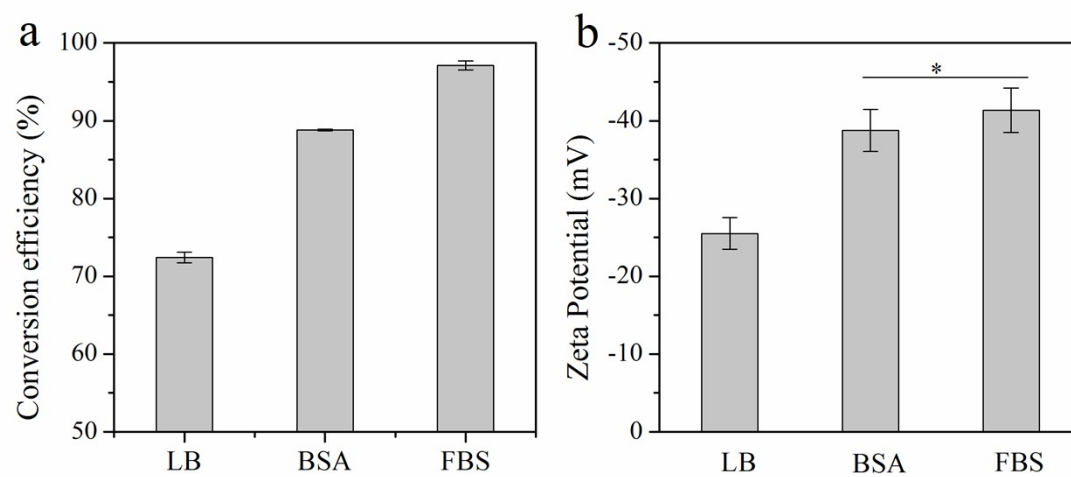


Fig. S3 The conversion efficiency (a) and zeta potential (b) of BioSeNPs synthesized in different medium

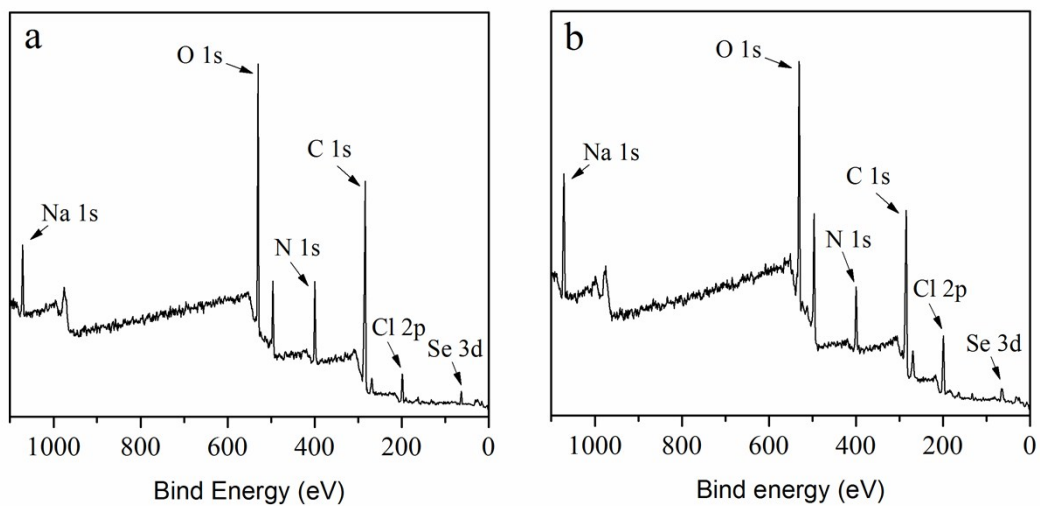


Fig. S4 Wide scan XPS spectra of (a) LB-BioSeNPs and (b) FBS-BioSeNPs.

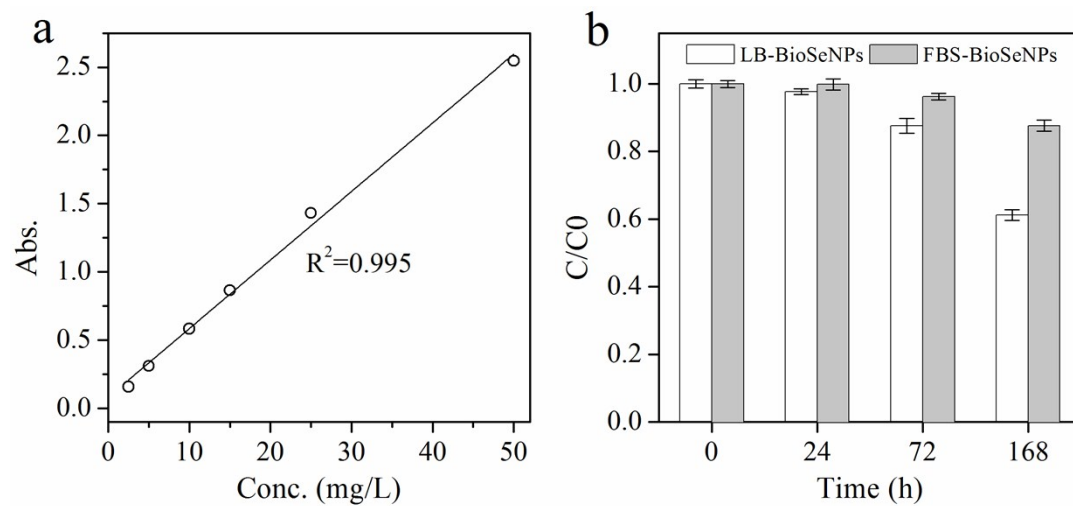


Fig.S5 (a) the calibration curve of BioSeNPs, (b) the BioSeNPs concentrations in suspensions during storage

Table S1 the relative amounts of elements in EDS spectra

		C	O	Se	Na	Cl
LB-BioSeNPs	Atomic%	34.86	7.15	1.12	19.97	36.90
	Weight%	17.50	4.79	3.70	19.21	54.80
FBS-BioSeNPS	Atomic%	51.81	11.92	3.71	12.43	20.13
	Weight%	29.53	9.06	13.88	13.58	33.94

Table S2 Binding energies (eV), assignments, and quantization of XPS spectral bands of LB-BioSeNPs and FBS-BioSeNPs.

Element	LB-BioSeNPs		FBS-BioSeNPs		Assignments
	peak (eV)	atomic (%)	peak (eV)	atomic (%)	
C 1s	284.46	42.43	284.33	40.09	C-(C, H)
C 1s	285.64	36.13	285.55	31.11	C-(O, N)
C 1s	287.86	21.44	287.54	28.80	C=O, O-C-O
O 1s	531.71	59.35	531.37	63.42	C=O
O1s	532.37	40.65	532.31	36.58	C-O-C, C-O-H