†Electronic Supplementary Information

Dislocation-Driven Growth of Porous CdSe Nanorods from CdSe·(ethylenediamine)$_{0.5}$ Nanorods

*Hyung-Bae Kim and Du-Jeon Jang**

Department of Chemistry, Seoul National University, NS60, Seoul 08826, Korea

E-mail: djjang@snu.ac.kr

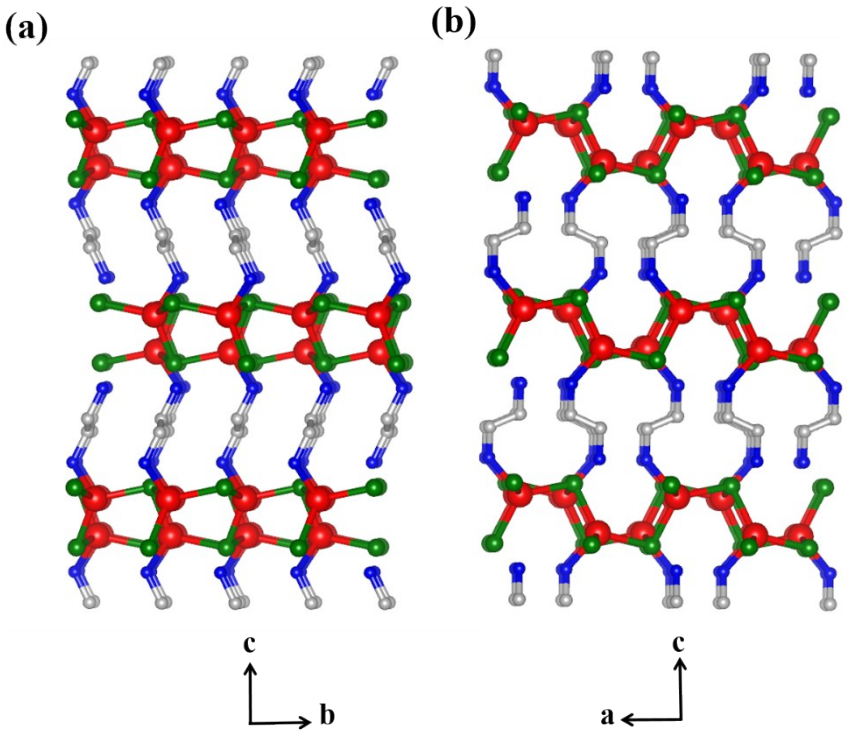

Fig. S1 Views of the orthorhombic crystal structure of CdSe·(en)$_{0.5}$ along the a-axis (a) and the b-axis (b). Crystal structures were reproduced from the reported crystallographic parameters.[1,2] Red, green, blue, and gray balls correspond to Cd, Se, N, and C atoms, respectively, while hydrogen atoms are omitted for clarity.

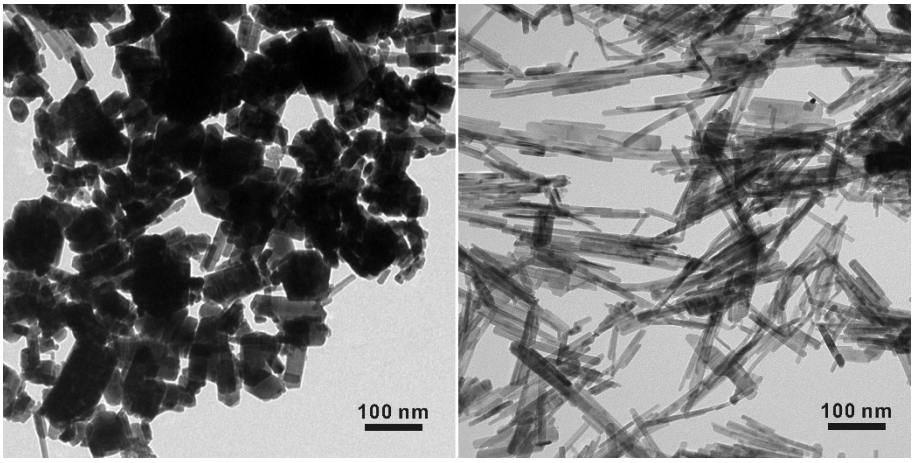

Fig. S2 TEM images of $CdSe{\cdot}(en)_{0.5}$ precursors produced with $[CdCl_2]$-to-[Se] ratios of 1.00 (left) and 2.00 (right).

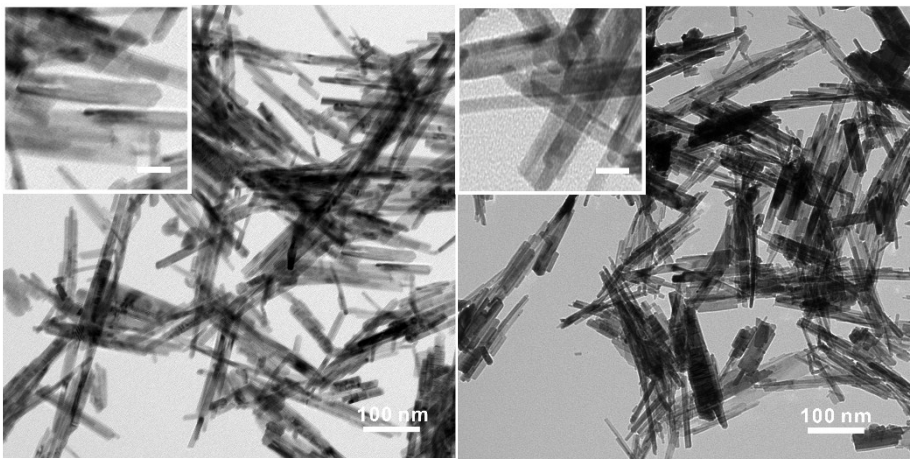

Fig. S3 TEM images of CE06 (left) and CE09 (right) nanostructures. Each scale bar inside inset represents 20 nm.

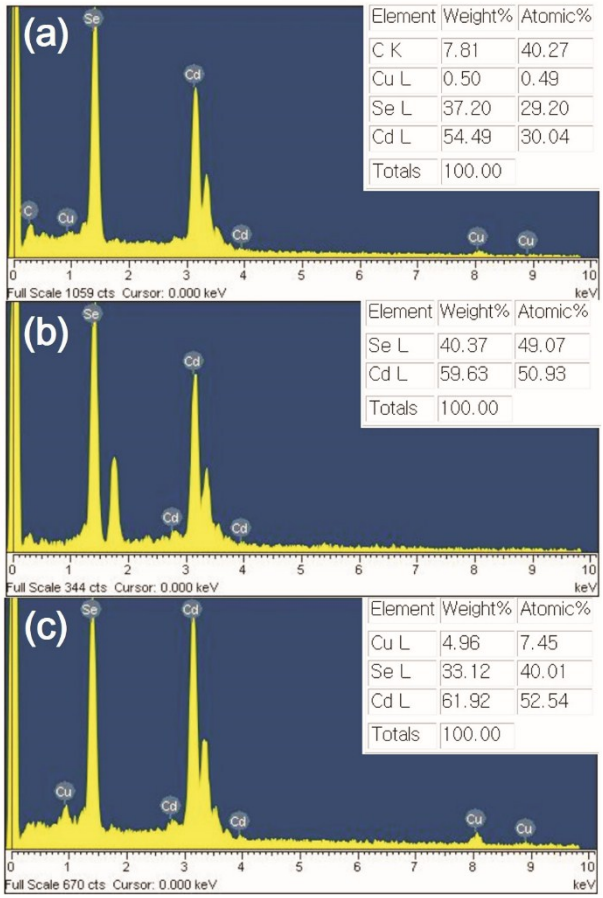

Fig. S4 EDX spectra of CE00 (a), CE06 (b), and CE12 (c) at sample areas of 30 μm × 30 μm on copper grids. The Cu peaks have originated from the Cu substrate, and the calculated atomic ratios of [Se]-to-[Cd] are 0.97 (a), 0.96 (b), and 0.76 (c).

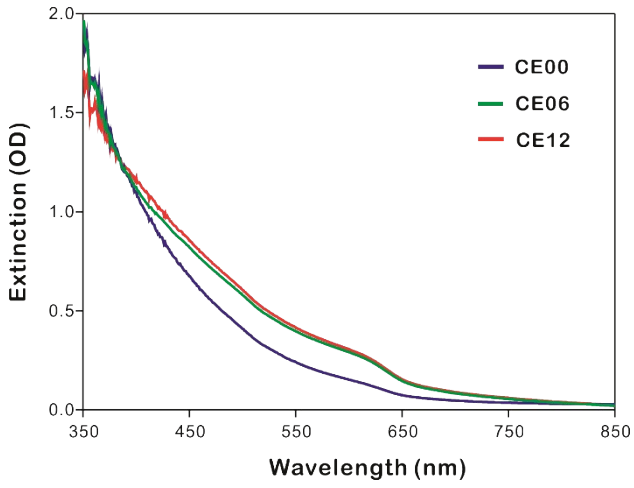

Fig. S5 UV-visible extinction spectra of indicated nanostructures suspended in ethanol.

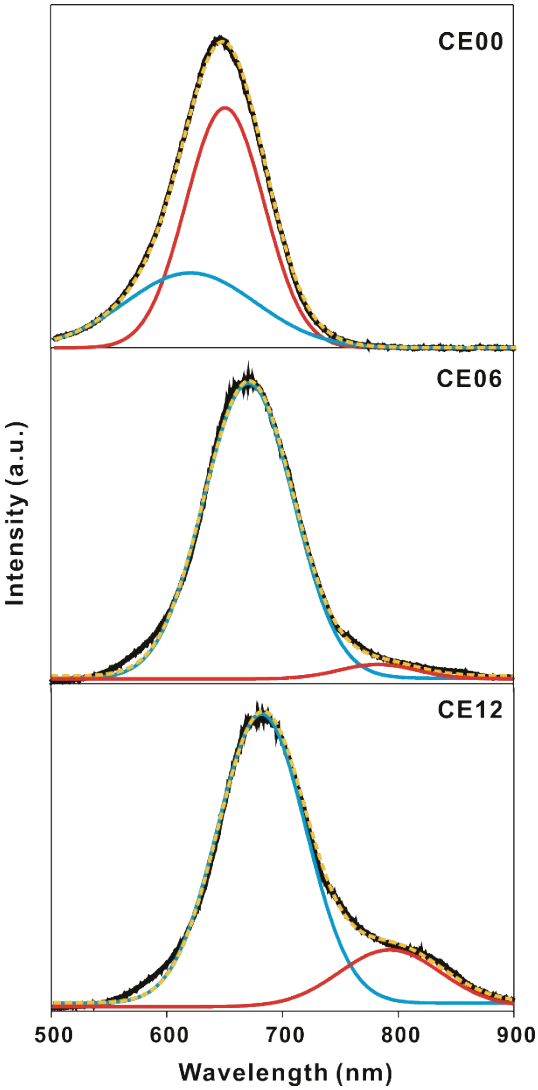

Fig. S6 Photoluminescence spectra of indicated nanostructures. The samples were suspended in ethanol and excited with 355 nm laser pulses of 6 ns. Solid blue and red lines correspond to deconvoluted Gaussian curves and dotted orange lines correspond to the sum of the Gaussian-fitted curves.

Table S1 Spectral parameters of the photoluminescence spectra of Fig. S6

sample	intensity (a.u.)	λ_{max} (nm)	PLQY (%)	blue curve (nm)	red curve (nm)
CE00	1.00	635	4.4	610 (66%)[a]	640 (34%)
CE06	0.79	671	3.8	671 (96%)	784 (4%)
CE12	0.52	680	3.2	680 (81%)	792 (19%)

[a]Area percentage of each curve.

References

(1) Z.-X. Deng, L. Li, Y. Li, *Inorg. Chem.* 2003, **42**, 2331–2341.

(2) X. Huang, J. Li, Y. Zhang, *J. Am. Chem. Soc.* 2003, **125**, 7049–7055.