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Electronic Supplementary Information for

Lateral Surface Passivation of CdSe Nanoplatelets through Crown Management

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Table S1. Decay channels and percentages before and after ligand exchange for C and C/CNPLs.

Parameters / Samples	$\tau_1(A_1\%)$ ns	$\tau_2(A_2\%)$ ns	$\tau_3(A_3\%)$ ns	τ_{avg} ns
C NPLs	0.34 (7.32%)	2.93 (22.80%)	15.14 (69.88%)	2.95
C/C NPLs	0.73 (9.83%)	3.32 (60.54%)	12.60 (29.64%)	2.94
C-Br NPLs	0.98 (4.03%)	5.40 (54.18%)	17.70 (41.79%)	6.05
C/C-Br NPLs	0.81 (4.27%)	4.65 (61.26%)	16.65 (34.47%)	5.01

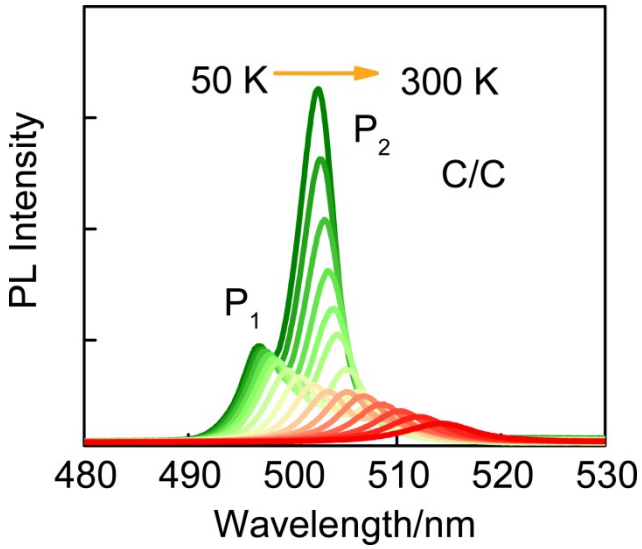

Figure S1. Temperature-dependent PL spectra of C/C from 50 to 300 K.

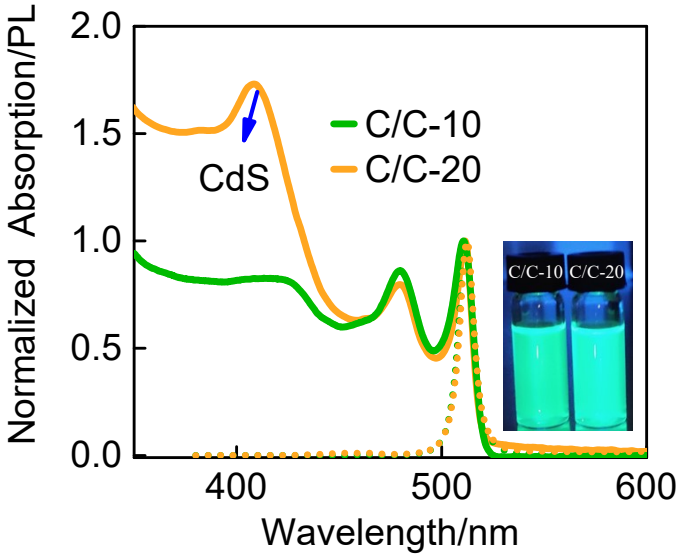

Figure S2. Normalized UV-visible absorption and PL spectra of C/C-10 and C/C-20 NPLs. Inset is the image of samples under UV light illumination.

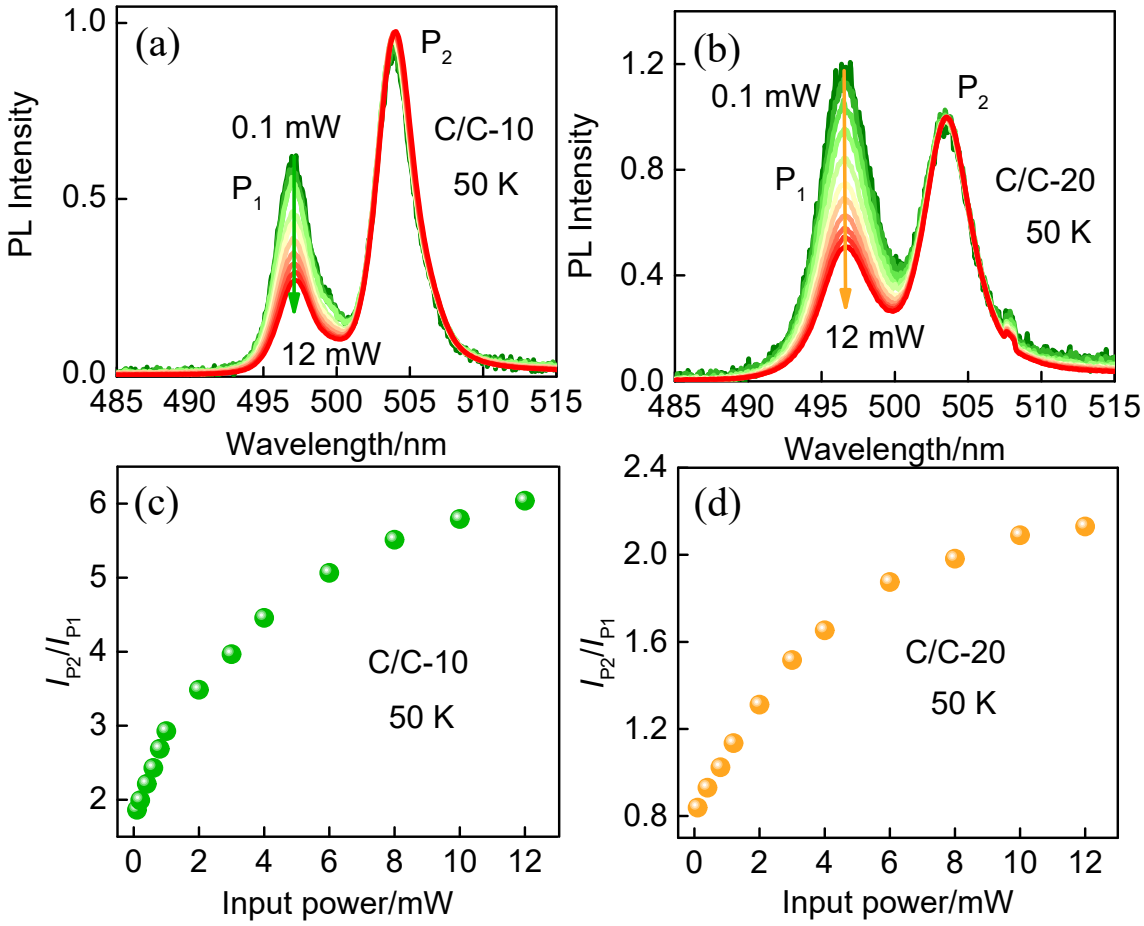

Figure S3. Power-dependent PL spectra of (a) C/C-10 and (b) C/C-20 NPLs at 50 K. (c) C/C-10 and (d) C/C-20 NPLs Power-dependent ratio of P_2/P_1.

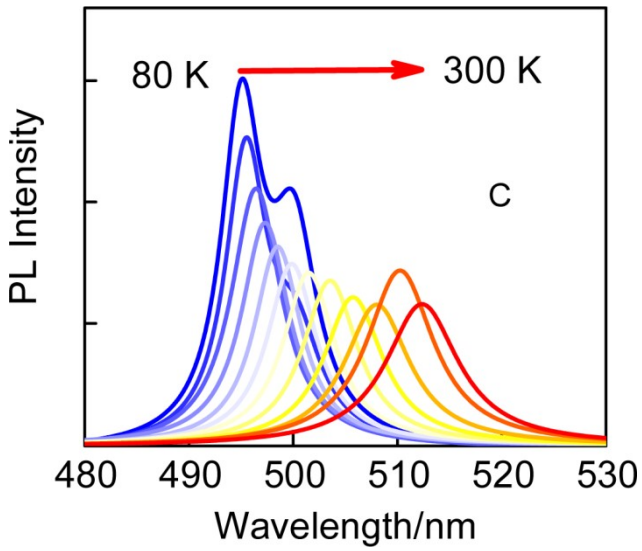

Figure S4. Temperature-dependent PL spectra of C NPLs under Xenon lamp excitation.

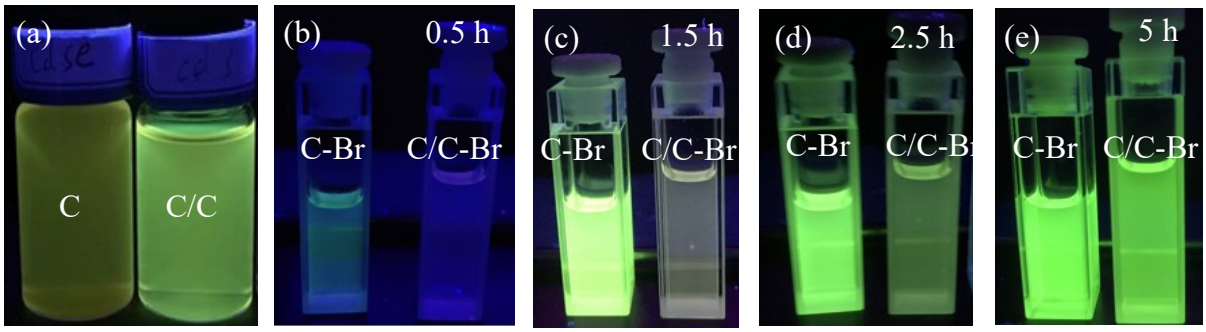

Figure S5. Colloidal solutions of C and C/C NPLs before ligand exchange under UV light illumination. 0 h (a), 0.5 h (b), 1.5 h (c), 2.5 h (d), and 5 h (e).

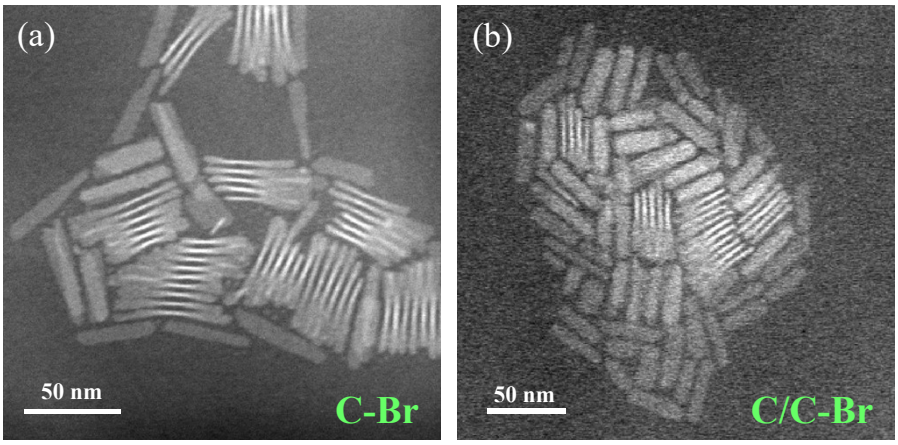

Figure S6. STEM images of C-Br (a) and C/C-Br NPLs (b).

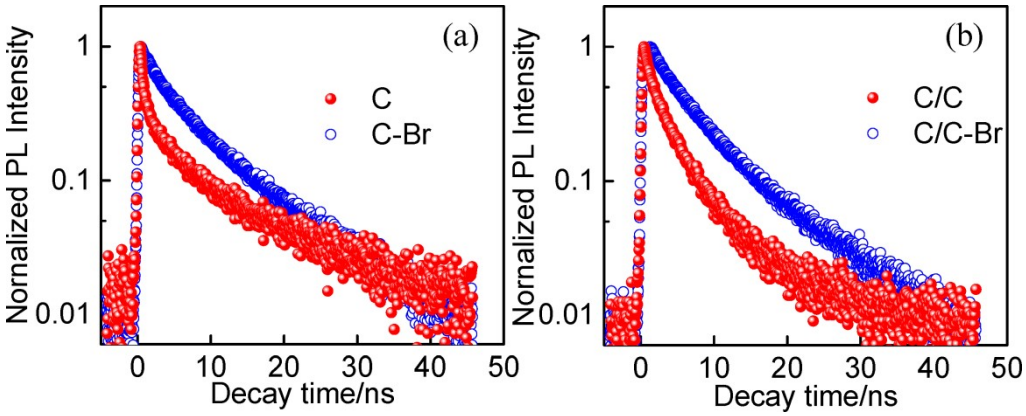

Figure S7. Comparison of TRPL of C (a) and C/C (b) NPLs before and after ligand exchange.