Supporting Information

Controlling Nucleation Process of InP/ZnS Quantum Dots Using Zeolite as A Nucleation Site

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Figure S1. Half-width of the InP/ZnS QDs emission spectra obtained by two different methods: (a) Zeolite regulate emission wavelength and (b) Nucleation time controlled emission wavelength.



Figure S2. Emission spectra of InP/ZnS QDs obtained by using water treated Na-Y zeolite



Figure S₃. (a) TEM image of InP QDs. (b) High-resolution TEM image of InP QDs



Figure S4. (a) XRD patterns of the zeolite at different stages of the QD synthesis (b) SEM image of zeolite.

(c) SEM image of zeolite after the reaction.



Figure S5. EDX energy spectrum of In-Y zeolite after the reaction

Element	Weight %	Atomic %	Uncert. %	Correction	k-Factor
C (K)	52.43	70.98	0.25	0.26	4.032
O(K)	15.98	16.24	0.10	0.49	2.008
Na (K)	1.29	0.91	0.05	0.81	1.181
Al(K)	3.11	1.87	0.03	0.92	1.030
Si(K)	9.36	5.42	0.05	0.92	1.000
P(K)	0.49	0.26	0.01	0.90	1.065
Cl(K)	0.28	0.13	0.00	0.95	1.055
Cu(K)	14.39	3.68	0.07	0.99	1.601
Zn(K)	0.94	0.23	0.02	0.99	1.686
In(K)	1.67	0.23	0.04	0.96	7.036

Table S1. The data of EDX component analysis



Figure S6. (a) The emission spectrum of InP/ ZnS QDs obtained by maintaining In-Y zeolite 0.15 g. (b)



Half-width of the InP/ZnS QDs emission spectra

Figure S7. (a) The emission spectrum of InP/ ZnS QDs obtained by maintaining In-Y zeolite 0.25 g. (b)

Half-width of the InP/ZnS QDs emission spectra



Figure S8. (a) The emission spectrum of InP/ ZnS QDs obtained by maintaining In-Y zeolite 0.35 g. (b)

Half-width of the InP/ZnS QDs emission spectra



Figure S9. (a) The emission spectra of InP/ ZnS QDs obtained by maintaining In-Y zeolite 0.45 g. (b) Half-



width of the InP/ZnS QDs emission spectra

Figure S10. Absorption spectra of InP cores obtained by two different methods: (a) Zeolite regulate

emission wavelength and (c) Nucleation time controlled emission wavelength.



Figure S11. Absorption and photoluminescence spectra of InP/ZnS QDs