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制备条件对 PEI 功能化石墨烯量子点荧光性能的影响

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Effect of Preparation Conditions on the Optical Properties of PEI-Functionalized Graphene Quantum Dots

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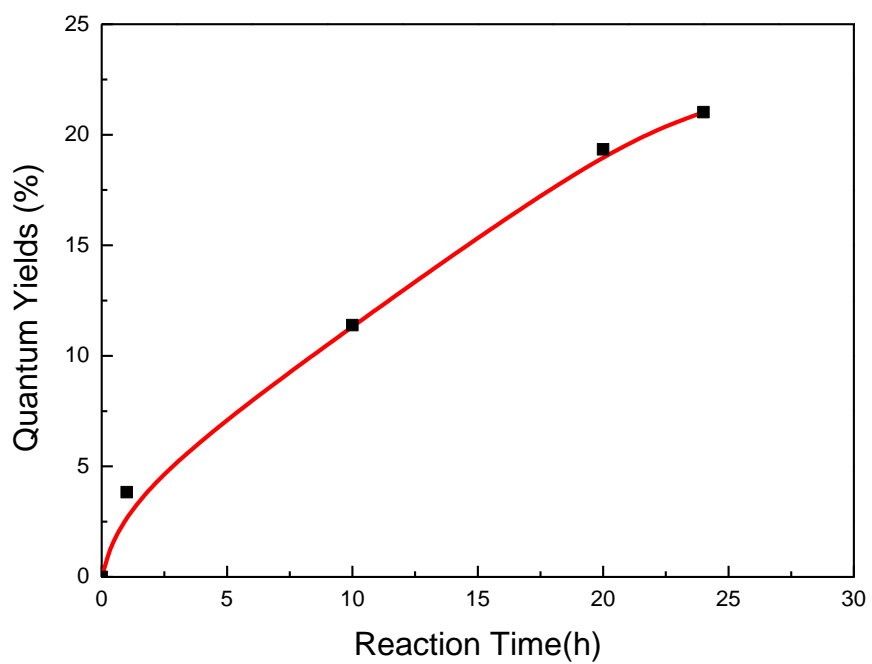


Fig.S1 Change of quantum yields versus reaction time

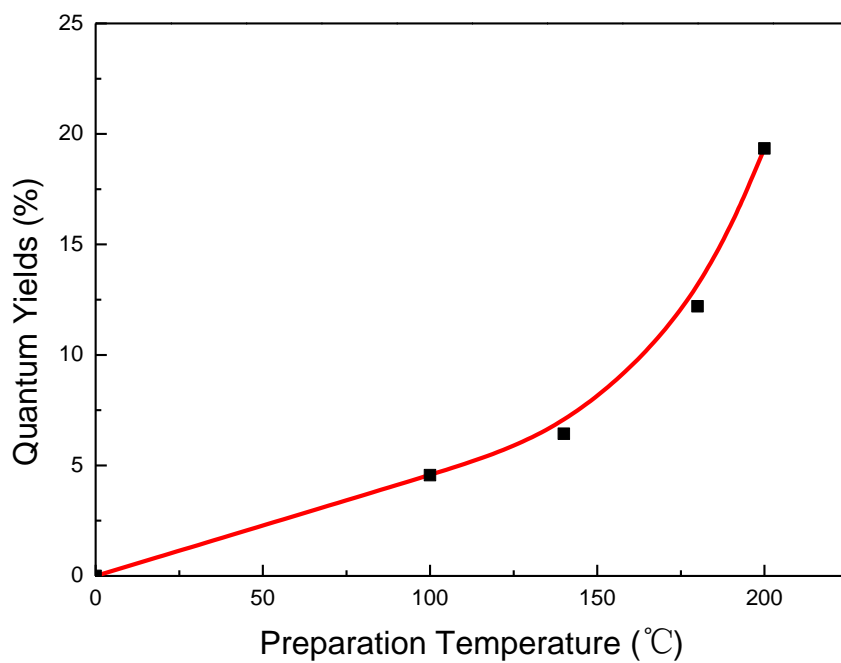


Fig. S2 Change of quantum yields versus preparation temperature

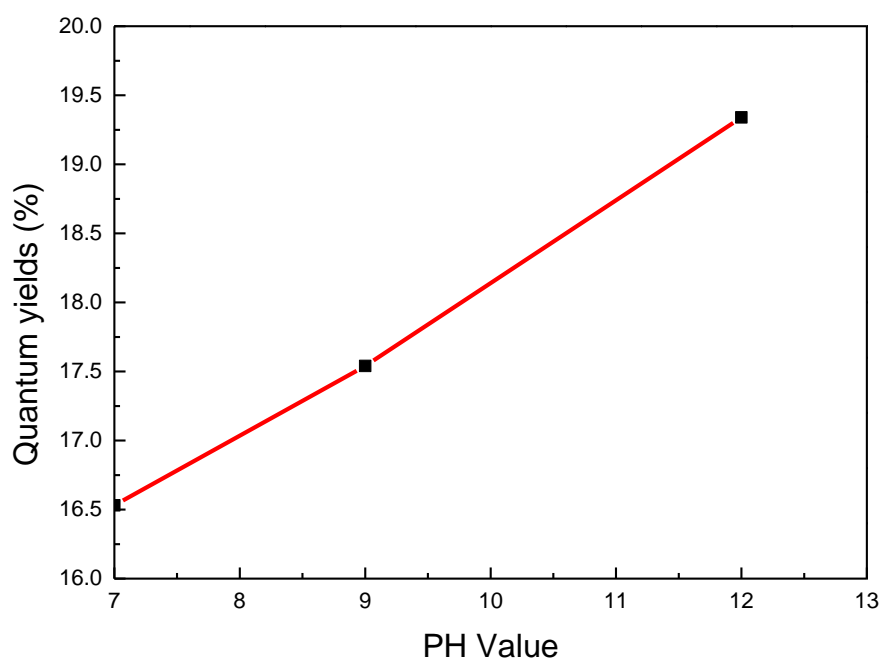


Fig.S3 Change of quantum yields verse pH value

Table S1 Detailed data for quantum yield calculation

Sample No.	A						A/Abs	η	ϕ
quinine sulfate	Abs	0.0169	0.0303	0.0501	0.0634	0.0897	1.0853×10^{10}	1.333	0.58
	A _{st}	1.90484×10^8	3.74606×10^8	6.19751×10^8	6.62777×10^8	9.3215×10^8			
1	Abs	0.0150	0.0389	0.591	0.0788	0.0973	6.86419×10^8	1.362	0.038296704
	A _x	1.55432×10^7	2.99117×10^7	4.23437×10^7	5.23613×10^7	6.50173×10^7			
2	Abs	0.0143	0.0412	0.0674	0.0734	0.0851	2.04181×10^9	1.362	0.11391671
	A _x	2.9537×10^7	1.0956×10^8	1.18605×10^8	1.36422×10^8	1.88042×10^8			
3	Abs	0.0201	0.0334	0.0500	0.0711	0.0853	3.46572×10^9	1.362	0.193359529
	A _x	1.17604×10^8	9.06895×10^7	1.92978×10^8	2.54606×10^8	2.75771×10^8			
4	Abs	0.0120	0.0304	0.0520	0.0682	0.0848	3.76796×10^9	1.362	0.21022211
	A _x	1.07481×10^8	1.46443×10^8	2.0096×10^8	2.51717×10^8	3.00424×10^8			
5	Abs	0.0173	0.0297	0.0592	0.0733	0.0832	2.18631×10^9	1.362	0.121978657
	A _x	3.03388×10^7	4.91987×10^7	1.39098×10^8	1.09518×10^8	2.26897×10^8			
6	Abs	0.0225	0.0398	0.0589	0.0736	0.0844	1.1525×10^9	1.362	0.064300306
	A _x	4.14072×10^7	5.86303×10^7	6.91258×10^7	8.08738×10^7	8.97056×10^7			
7	Abs	0.0258	0.0447	0.0600	0.0726	0.0874	8.18174×10^8	1.362	0.045647582
	A _x	2.89083×10^7	4.90154×10^7	4.26243×10^7	5.78355×10^7	6.85803×10^7			
8	Abs	0.0304	0.0414	0.0654	0.0750	0.0912	2.96261×10^9	1.362	0.165290004
	A _x	9.79255×10^7	1.36391×10^8	1.89263×10^8	2.31121×10^8	2.57215×10^8			
9	Abs	0.0177	0.0521	0.0697	0.0868	0.0999	3.14359×10^9	1.362	0.175387245
	A _x	6.50064×10^7	1.62578×10^8	2.2932×10^8	2.6524×10^8	3.12511×10^8			