

Electronic Supplementary Information (ESI)

Multi-color Luminescence of Uniform CdWO₄ Nanorods through Eu³⁺ Ion Doping

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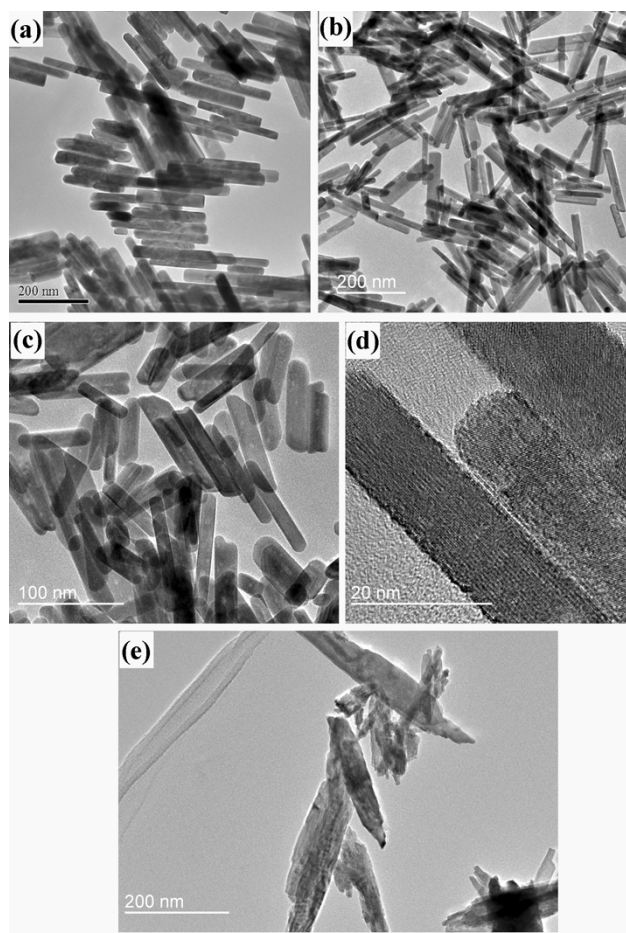


Fig. S1 TEM images of CdWO₄ (a), CdWO₄:2.0%Eu³⁺ (b), CdWO₄:4.0%Eu³⁺ (c, d) and CdWO₄:6.5%Eu³⁺ (e) nanorods.

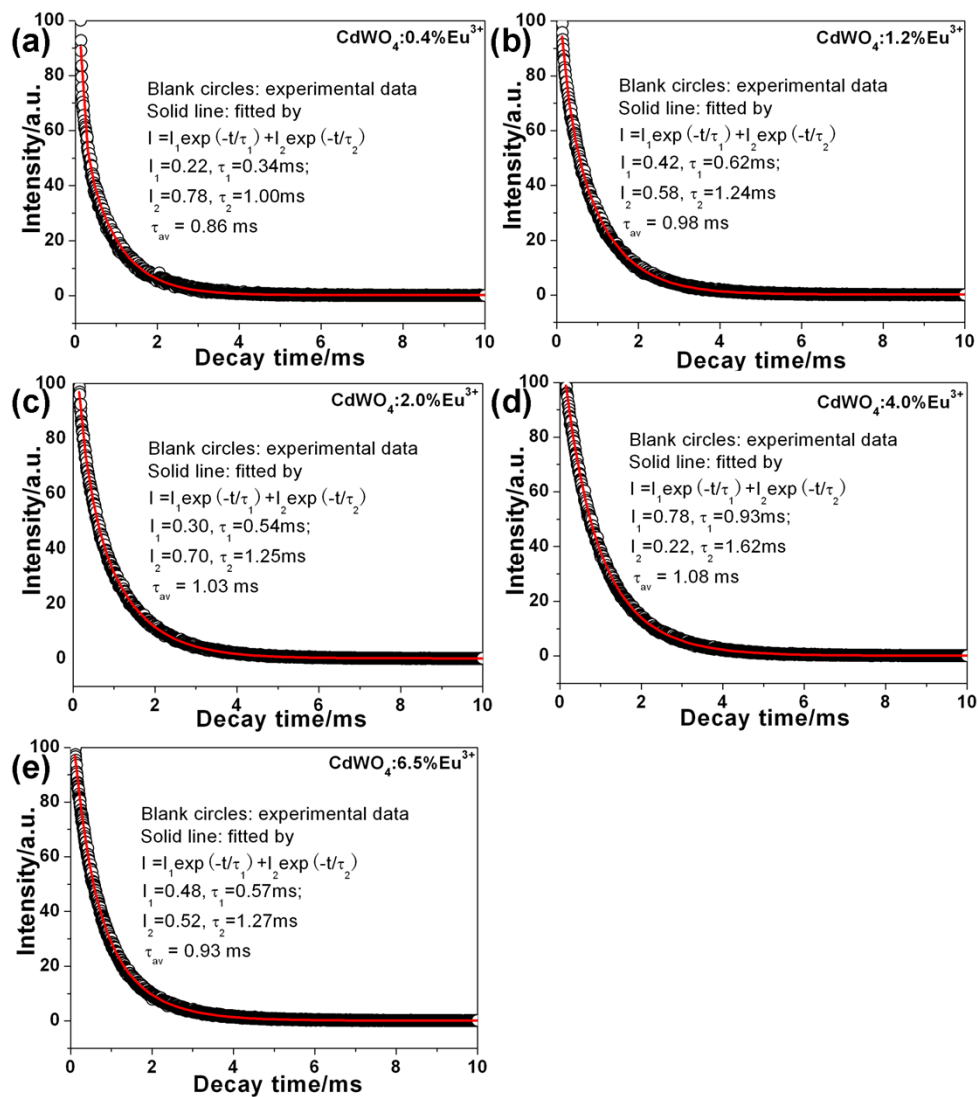


Fig. S2 Luminescent decay curves of CdWO₄: x%Eu³⁺ (x = 0.4, 1.2, 2.0, 4.0 and 6.5) with $\lambda_{ex} = 290 \text{ nm}$ and $\lambda_{em} = 615 \text{ nm}$.

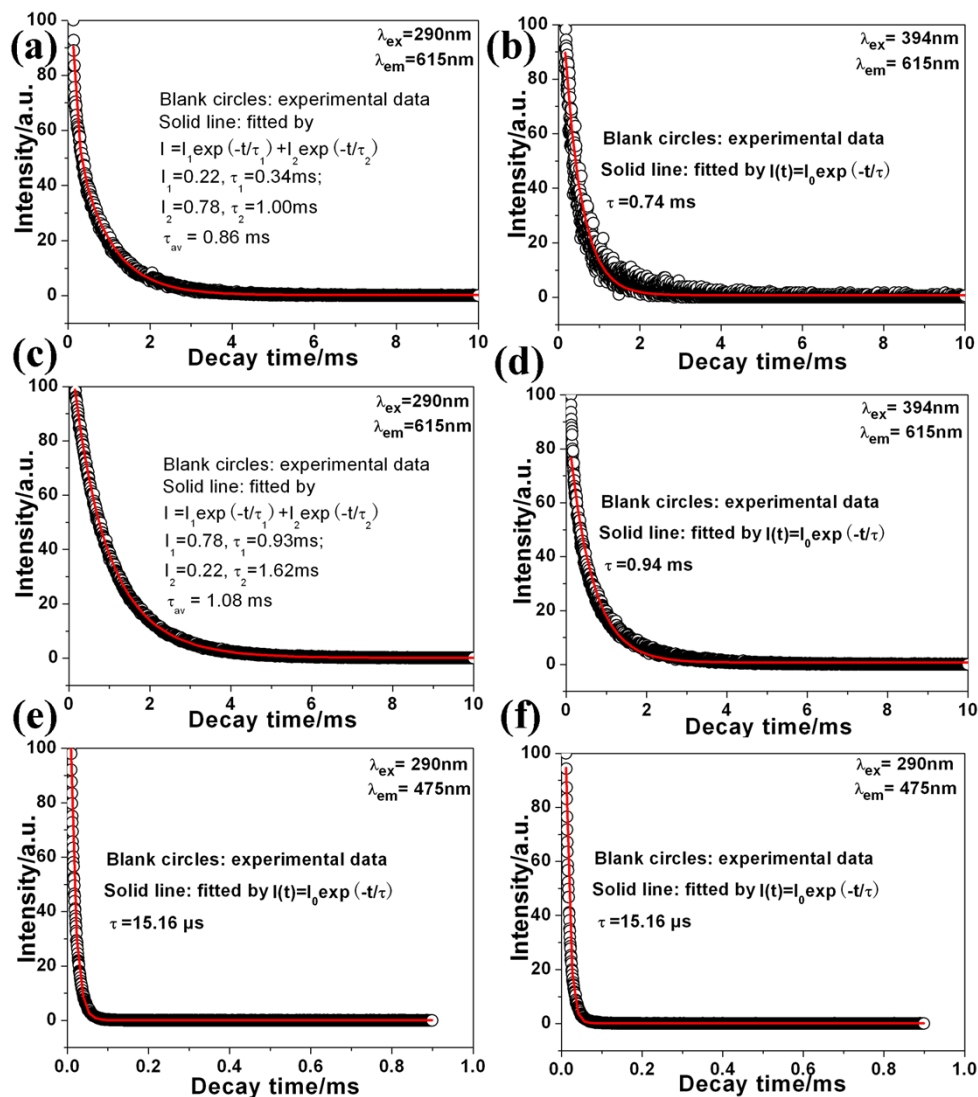


Fig. S3 Luminescent decay curves of $\text{CdWO}_4:0.4\%\text{Eu}^{3+}$ under (a) 290 and (b) 394 nm excitations, $\text{CdWO}_4:0.4\%\text{Eu}^{3+}$ under (c) 290 and (d) 394 nm excitations, and $\text{CdWO}_4:0.4\%\text{Eu}^{3+}$ (e) and $\text{CdWO}_4:0.4\%\text{Eu}^{3+}$ (f) 290 nm excitation.

Table S1 Luminescence lifetimes of $\text{CdWO}_4\text{:}x\%\text{Eu}^{3+}$ ($x = 0.4, 1.2, 2.0, 4.0$ and 6.5) under the excitation of $\lambda_{\text{ex}} = 290$ nm and $\lambda_{\text{ex}} = 394$ nm.

$\lambda_{\text{ex}}/\text{nm}$	$\lambda_{\text{em}}/\text{nm}$	Sample	τ/ms
290	615	$\text{CdWO}_4\text{:}0.4\%\text{Eu}^{3+}$	0.86
		$\text{CdWO}_4\text{:}1.2\%\text{Eu}^{3+}$	0.98
		$\text{CdWO}_4\text{:}2.0\%\text{Eu}^{3+}$	1.03
		$\text{CdWO}_4\text{:}4.0\%\text{Eu}^{3+}$	1.08
		$\text{CdWO}_4\text{:}6.5\%\text{Eu}^{3+}$	0.93
394	615	$\text{CdWO}_4\text{:}0.4\%\text{Eu}^{3+}$	0.74
		$\text{CdWO}_4\text{:}1.2\%\text{Eu}^{3+}$	0.86
		$\text{CdWO}_4\text{:}2.0\%\text{Eu}^{3+}$	0.97
		$\text{CdWO}_4\text{:}4.0\%\text{Eu}^{3+}$	0.94
		$\text{CdWO}_4\text{:}6.5\%\text{Eu}^{3+}$	0.73