

**BaAl₂O₄:Eu²⁺, Dy³⁺/ organic dye encapsulated mesoporous silica composites
multicolor long persistent phosphor based on radiative energy transfer process**

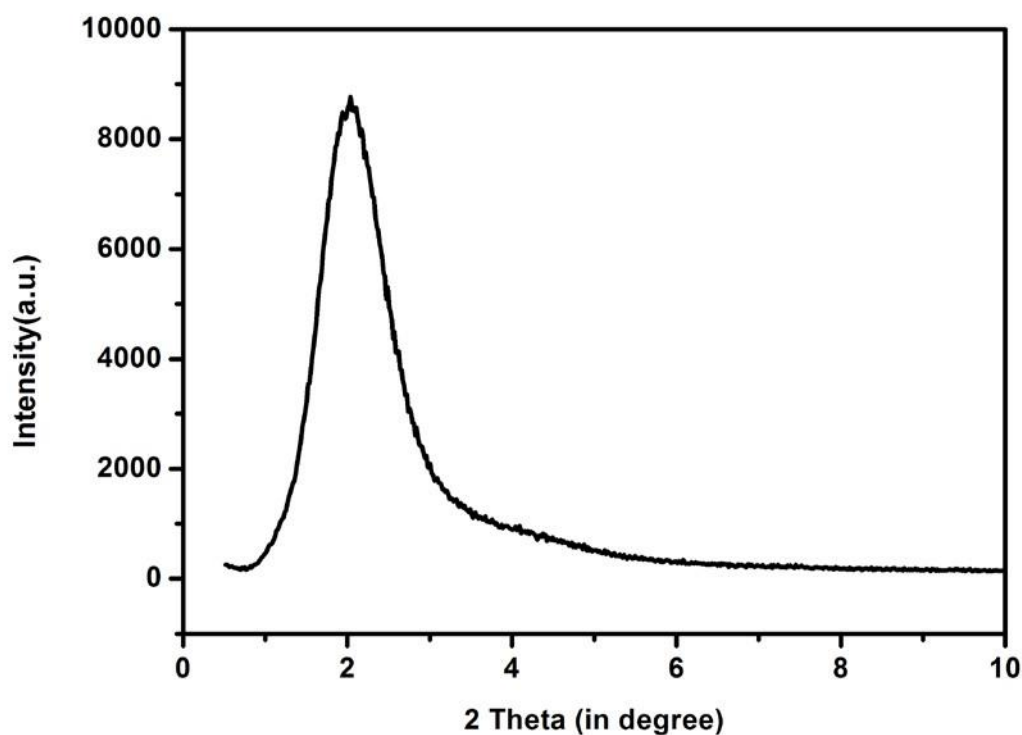
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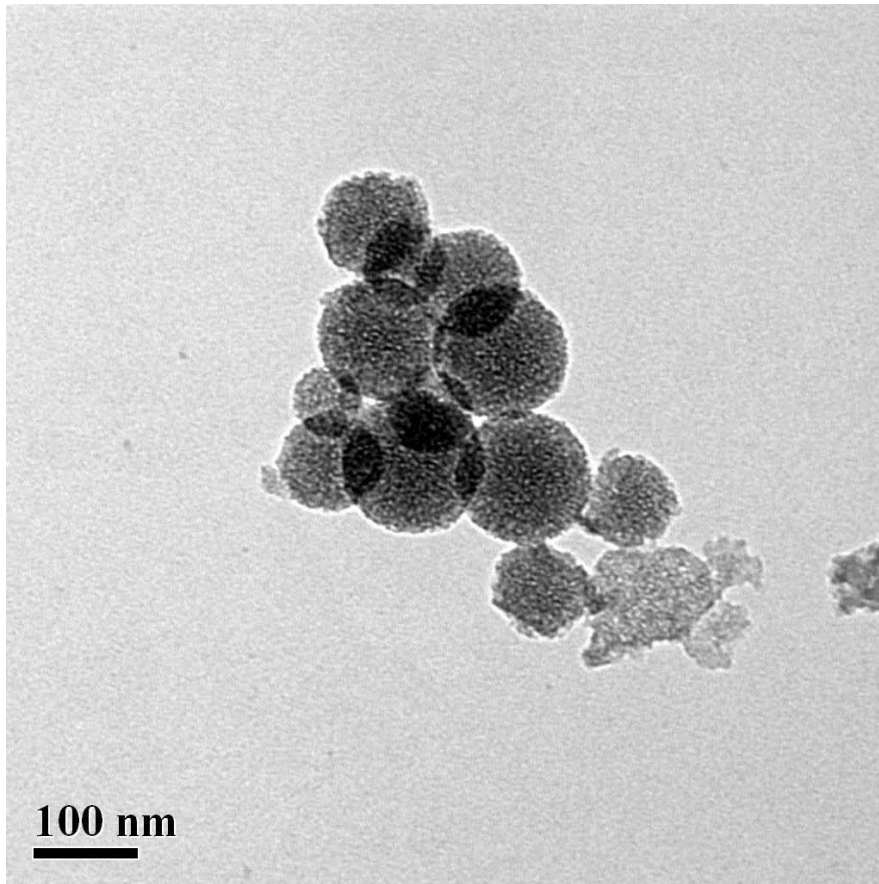
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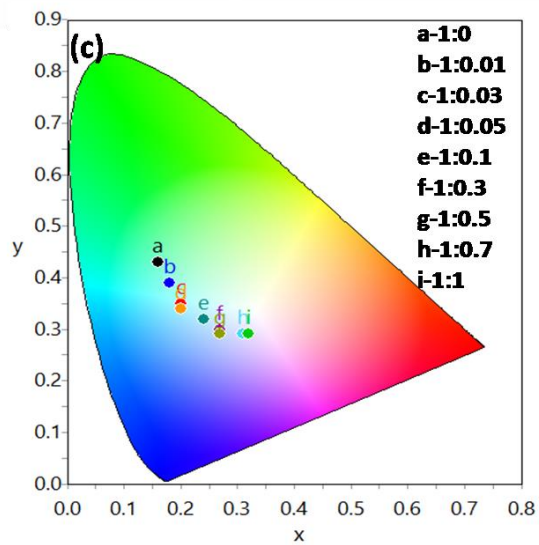
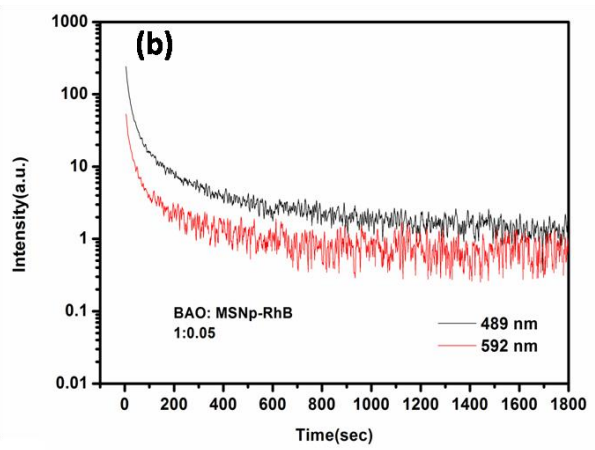
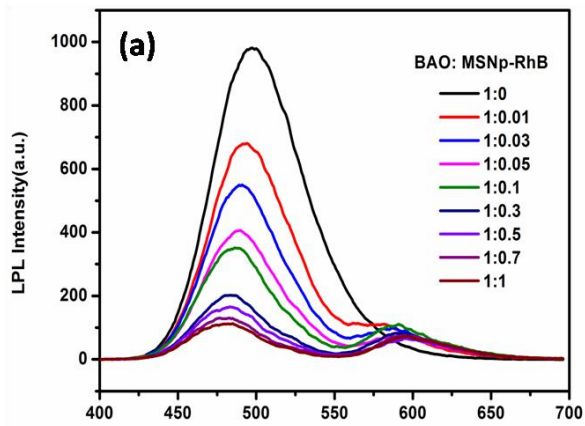
List of Supplementary Figure



S1. Powder XRD pattern of mesoporous silica nanoparticles.



S2. Transmission Electron Microscope (TEM) image of mesoporous silica nanoparticles.



S3. (a) Long persistent luminescence(LPL) spectra, (b) Afterglow decay curves, (c) CIE diagram of BAO/MSNp-RhB composites with different ratio.

S4. The afterglow decay parameters of BAO/MSNp-RhB(mass ratio BAO:MSNp-RhB=1:0.05) composites monitored at 489 nm and 592 nm.

$\lambda_{\text{emi}}=489\text{nm}$			$\lambda_{\text{emi}}=592\text{nm}$		
$\tau_1(\text{s})$	$\tau_2(\text{s})$	$\tau_3(\text{s})$	$\tau_1(\text{s})$	$\tau_2(\text{s})$	$\tau_3(\text{s})$
6.74±0.08	28.44±0.40	207.201±3.29	5.11±0.20	25.86±0.68	199.91±6.86

S5. The CIE co-ordinates of BAO/MSNp-RhB composite phosphor.

Symbol	Mass ratio of BAO:MSNp-Rh6G (w:w)	Colour Co-ordinates	
		x	y
a	1:0	0.16	0.43
b	1:0.01	0.18	0.39
c	1:0.03	0.20	0.35
d	1:0.05	0.20	0.34
e	1:0.1	0.24	0.32
f	1:0.3	0.27	0.30
g	1:0.5	0.27	0.29
h	1:0.7	0.31	0.29
i	1:1	0.32	0.29