

# Facile additive-free solvothermal synthesis of cadmium sulfide flower-like three dimensional assemblies with unique optical properties and photocatalytic activity

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Cadmium sulfide flower-like 3D assemblies were successfully prepared through a facile additive-free solvothermal process. It was found that the ethanol played an important role in the formation of the CdS assemblies. Based on the time-dependent experiments, a possible mechanism was proposed. In addition, the CdS assemblies exhibit unique optical properties and potential photocatalytic activity.

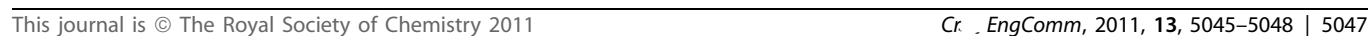
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C 15,16  
 H w , C 3D  
 H , w .  
 C w - 3D  
 I w , w  
 C w - 3D  
 16 H w ,  
 I y  
 C C<sub>2</sub>·2.5H<sub>2</sub> w /  
 w (2 : 3, / ) H w 5.4  
 y, w  
 160 °C 9 , - w  
 F y,  
 w w  
 (DD w )  
 F , w  
 I y 1, C w  
 y x  
 DD w . I y 2, C w  
 DD w  
 y C w  
 y ( E , -6390 ,  
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 E ) , y ( H -  
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 C - α  
 C w  
 -E 17 - A  
 F-540 C w  
 ( ) - C . F y y  
 , - C w y  
 y w  
 A w ,  
 w x 500 x

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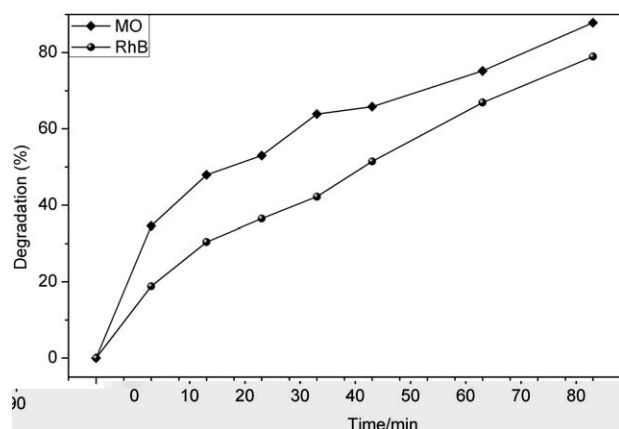


Fig. 5

C w - 3D B y -  
w y y w  
w w y y y B y  
D C ( C  
2009CB626610) I y F C  
( 20771036) I y F C  
C y H y C  
y y F H' E y C (

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