

## **Supplementary Materials**

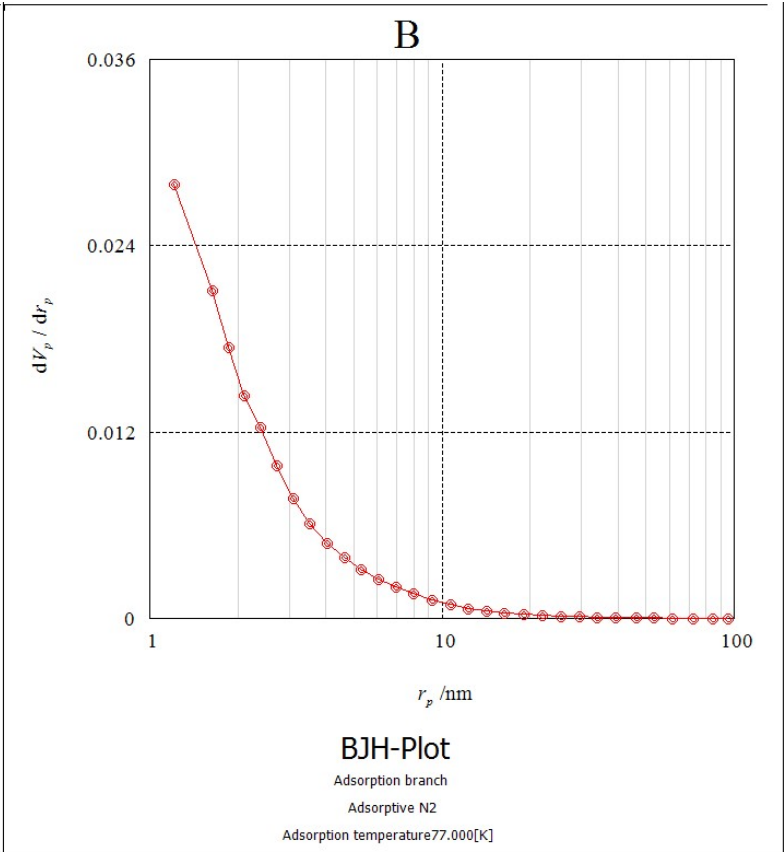
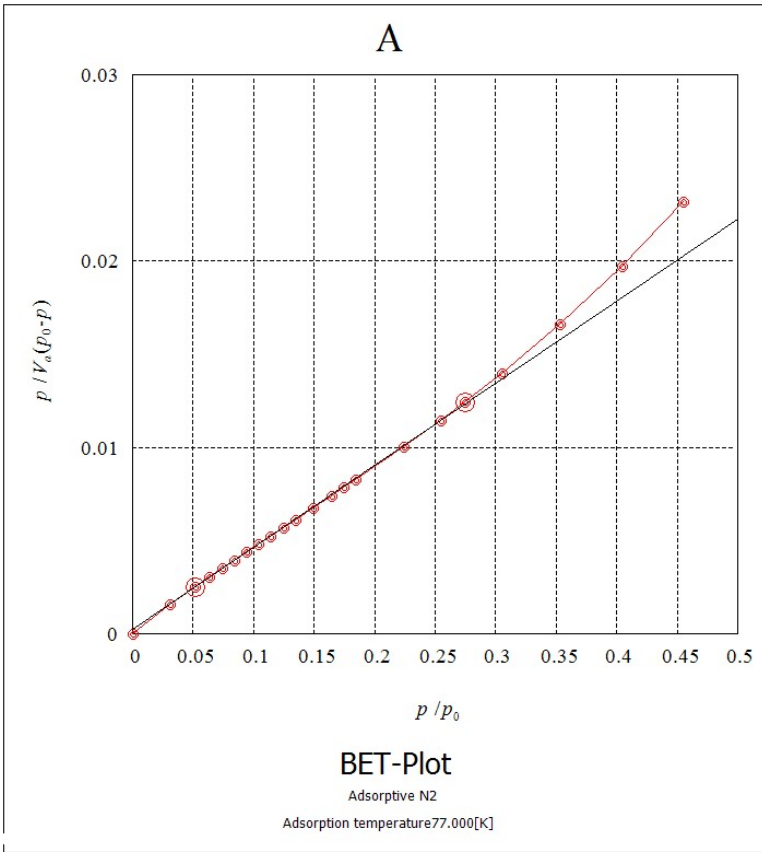
### **Superior photocatalytic activity of Mn vanadate/reduced graphene oxide magnetic nanocomposite for oxidation of methylene blue dye under sunlight irradiation**

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Content:

BET and BJH plots



$V_m$	22.599 [cm <sup>3</sup> (STP) g <sup>-1</sup> ]	$a_{s,BET}$	9.8360E+01 [m <sup>2</sup> g <sup>-1</sup> ]
$C$	188.60	Total pore volume( $p/p_0=0.990$ )	8.8772E-02 [cm <sup>3</sup> g <sup>-1</sup> ]
Mean pore diameter	3.6101 [nm]		

$V_p$	6.8037E-02 [cm <sup>3</sup> g <sup>-1</sup> ]	$r_{p,peak}(Area)$	1.21 [nm]
$a_p$	58.923 [m <sup>2</sup> g <sup>-1</sup> ]		

Fig S1. A) BET and B) BJH plots of rGO

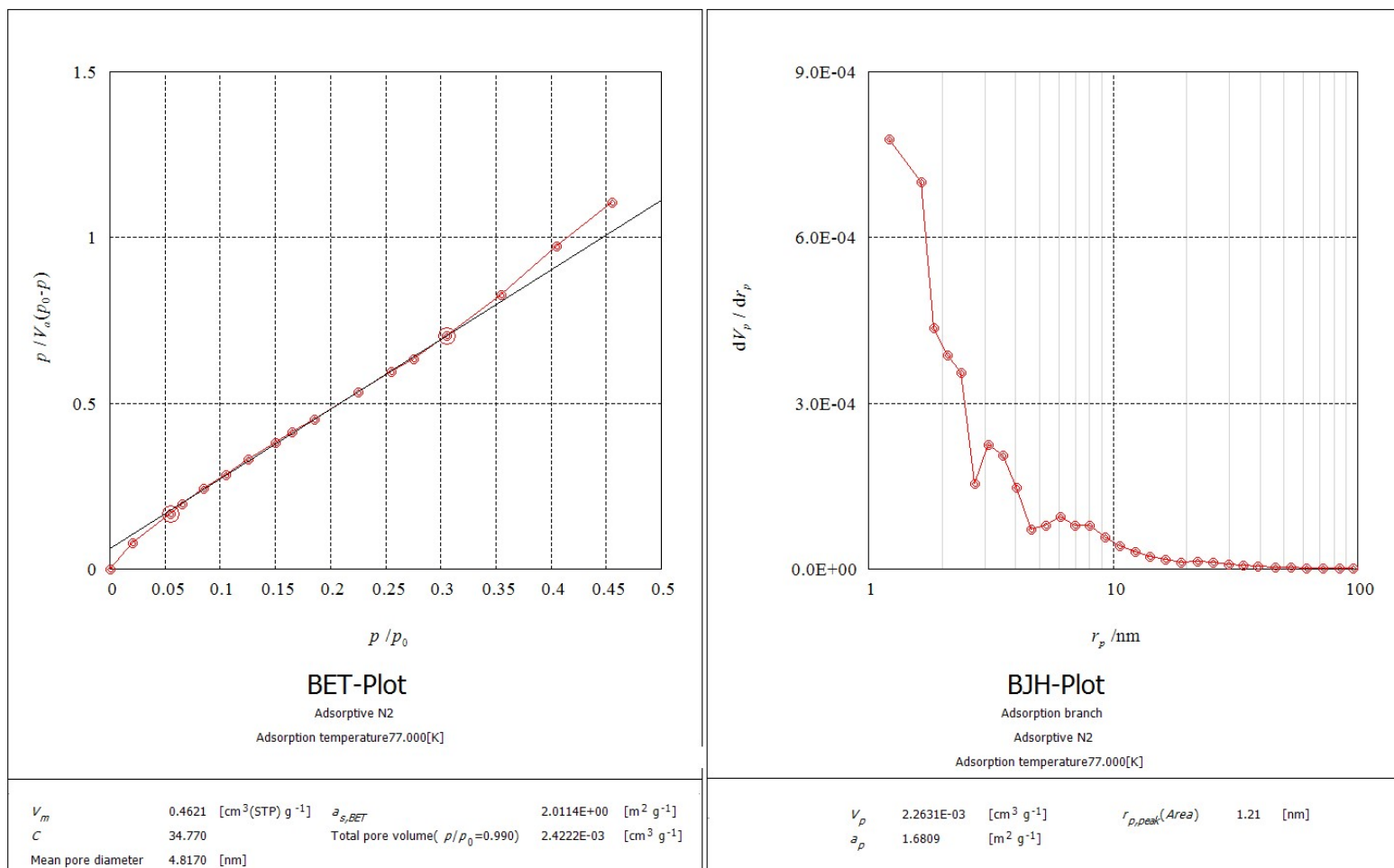
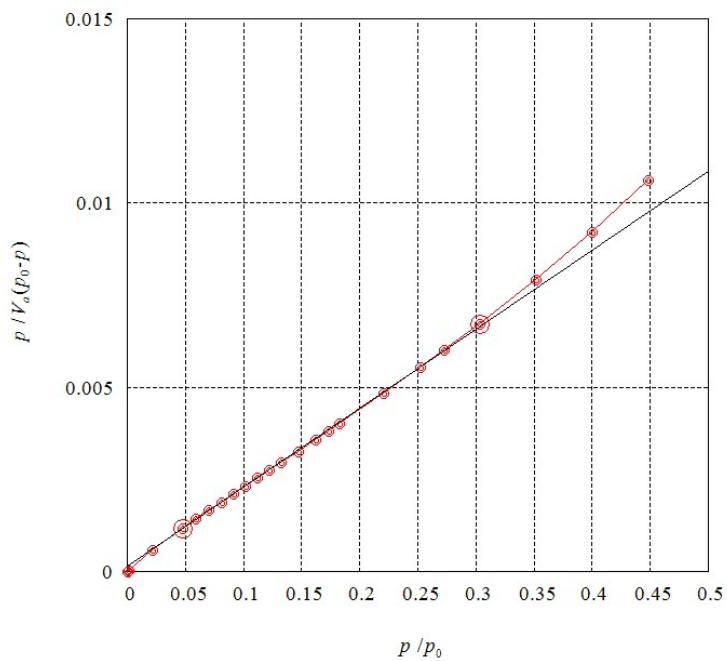
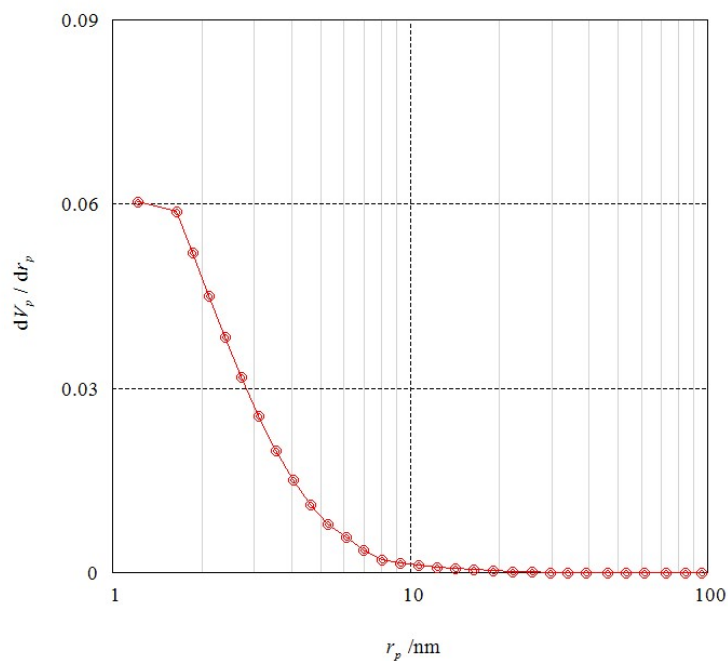


Fig S2. BET and BJH plots of MnV<sub>2</sub>O<sub>6</sub>-2



**BET-Plot**

Adsorptive N2  
Adsorption temperature 77.000[K]



**BJH-Plot**

Adsorption branch  
Adsorptive N2  
Adsorption temperature 77.000[K]

$V_m$	46.296 [cm <sup>3</sup> (STP) g <sup>-1</sup> ]	$a_{s,BET}$	2.0150E+02 [m <sup>2</sup> g <sup>-1</sup> ]
$C$	146.48	Total pore volume( $p/p_0=0.990$ )	0.1926 [cm <sup>3</sup> g <sup>-1</sup> ]
Mean pore diameter	3.8236 [nm]		

$V_p$	0.1603 [cm <sup>3</sup> g <sup>-1</sup> ]	$r_{p,peak}(Area)$	1.21 [nm]
$a_p$	147.64 [m <sup>2</sup> g <sup>-1</sup> ]		

Fig S3. BET and BJH plots of rGO/Fe<sub>3</sub>O<sub>4</sub>/MnV<sub>2</sub>O<sub>6</sub> composite