## **Chemically Bonded Graphene/BiOCl Nanocomposites as a High-performance Photocatalyst** Feidan Gao,<sup>*a*</sup> Dawen Zeng,<sup>\**ab*</sup> Qingwu Huang,<sup>*b*</sup> Shouqin Tian<sup>*b*</sup> and Changsheng Xie<sup>*a,b*</sup>

a State Key Laboratory of Materials Processing and Die & Mould Technology, Huazhong University of Science and Technology (HUST), No. 1037, Luoyu Road, Wuhan 430074, China Nanomatarials and Smart Sanaa Basarah Laboratory, Danartment of Materials Science and Engineering, Huazhong

b Nanomaterials and Smart Sensor Research Laboratory, Department of Materials Science and Engineering, Huazhong University of Science and Technology, No. 1037, Luoyu Road, Wuhan 430074, China

## **Supporting Information**

Table S1. Detailed information of the deconvoluted C (1s) XPS spectra with peak area

	Band	C-C	C-0	C=O
GR	Position/eV	284.3	286.0	288.0
	Area	18797.7	5450.4	4052.2
	A/A <sub>CC</sub>	1	0.290	0.216
GR/BiOCl	Position/eV	284.6	286.6	288.5
	Area	21146.1	2628.5	1023.0
	A/A <sub>CC</sub>	1	0.124	0.048

(A) ratios of the oxygen-containing bonds to the CC bonds.

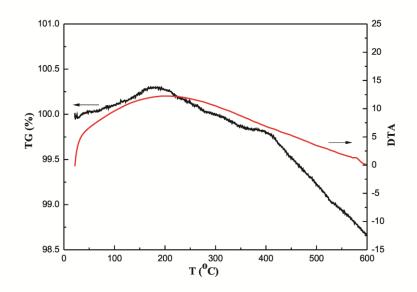


Figure S1. TG-DTA curves of pure BiOCl.

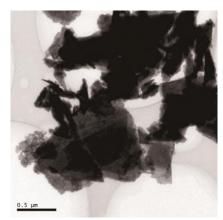


Figure S2. Low magnification TEM images of GR/BiOCl.

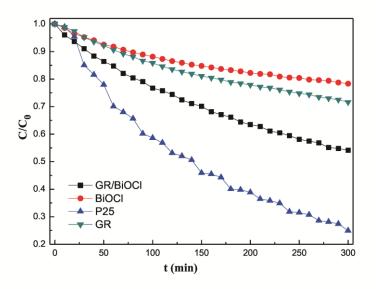


Figure S3. Photodegradation of methylbenzene under UV light over GR/BiOCl, BiOCl, P25 and as-prepared GR.