

Supplementary Information

Enhanced photodegradation of decabromodiphenyl ether on oxygen vacancies enriched Bi_2MoO_6

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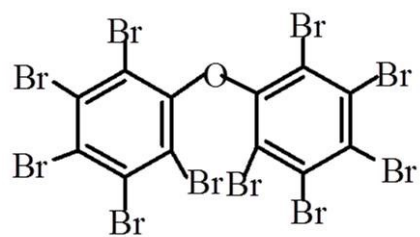


Figure S1 The structure of BDE209

Table S1 The specific surface areas of BMO-x (x=0, 3, 5, 7, 9)

Samples	$S_{BET} (m^2/g)$	$S_{Langmuir} (m^2/g)$
BMO-0	53.4769	73.6617
BMO-3	33.2596	45.8099
BMO-5	35.1345	48.4803
BMO-7	48.6911	67.9136
BMO-9	52.2120	72.3736

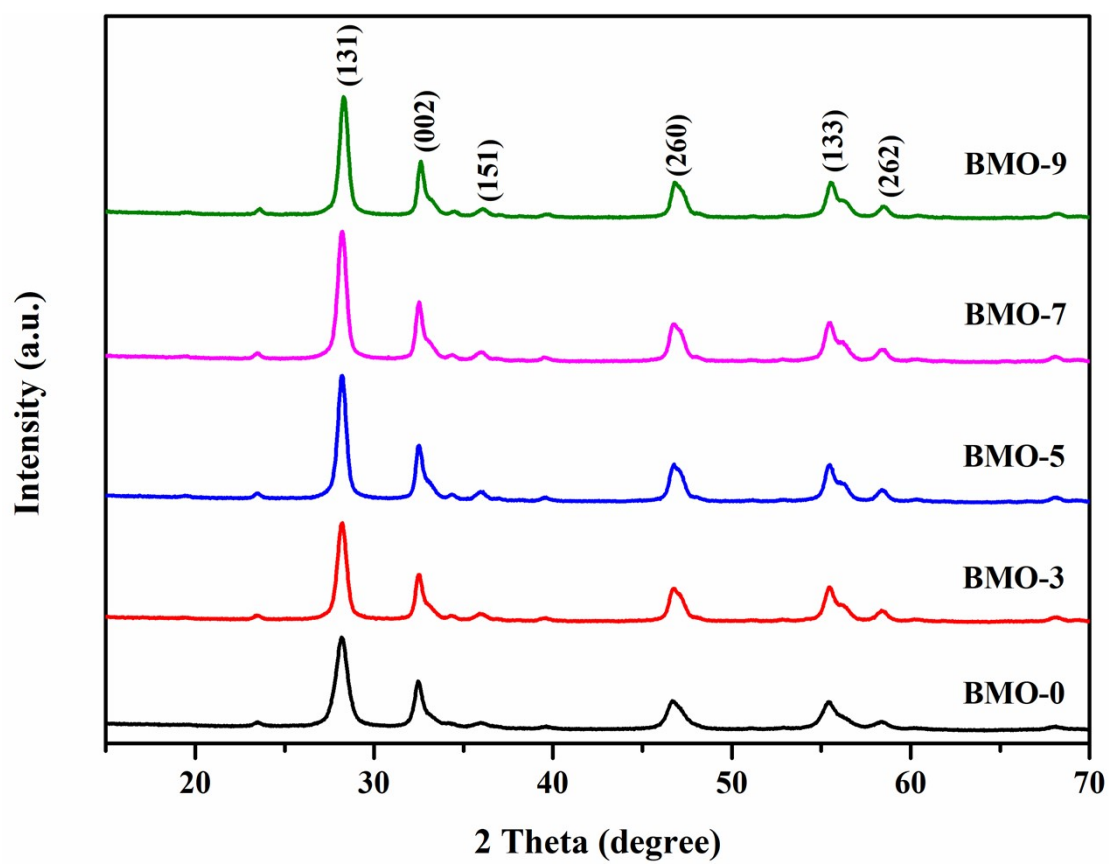


Figure S2 XRD patterns of the resulting samples after illumination ($\lambda > 420$ nm)

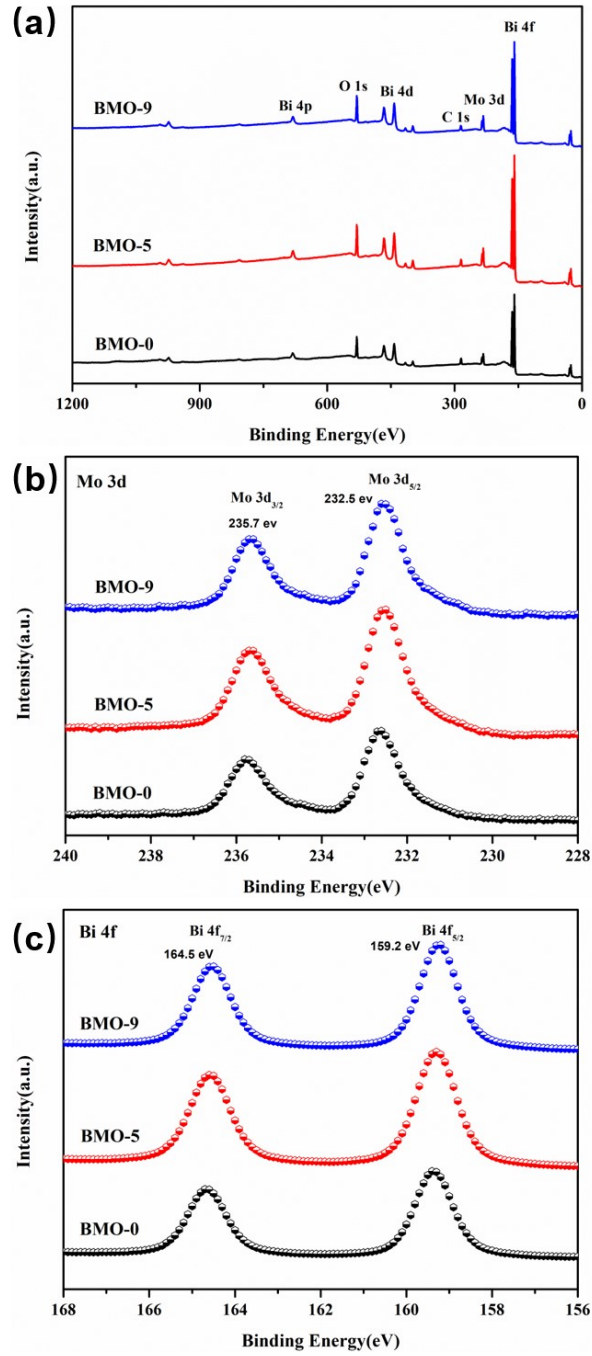


Figure S3. XPS spectra of BMO-0, BMO-5 and BMO-9 (a) Full-range spectrum, (b) Mo 3d, (c) Bi 4f

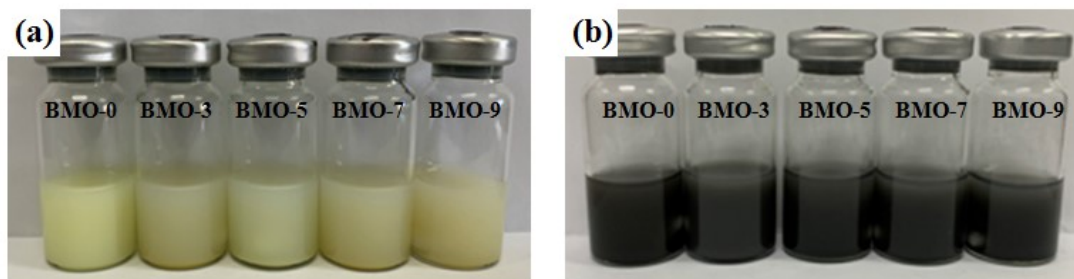


Figure S4 The colors change of the BMO- x ($x=0, 3, 5, 7, 9$) before (a) and after (b) illumination

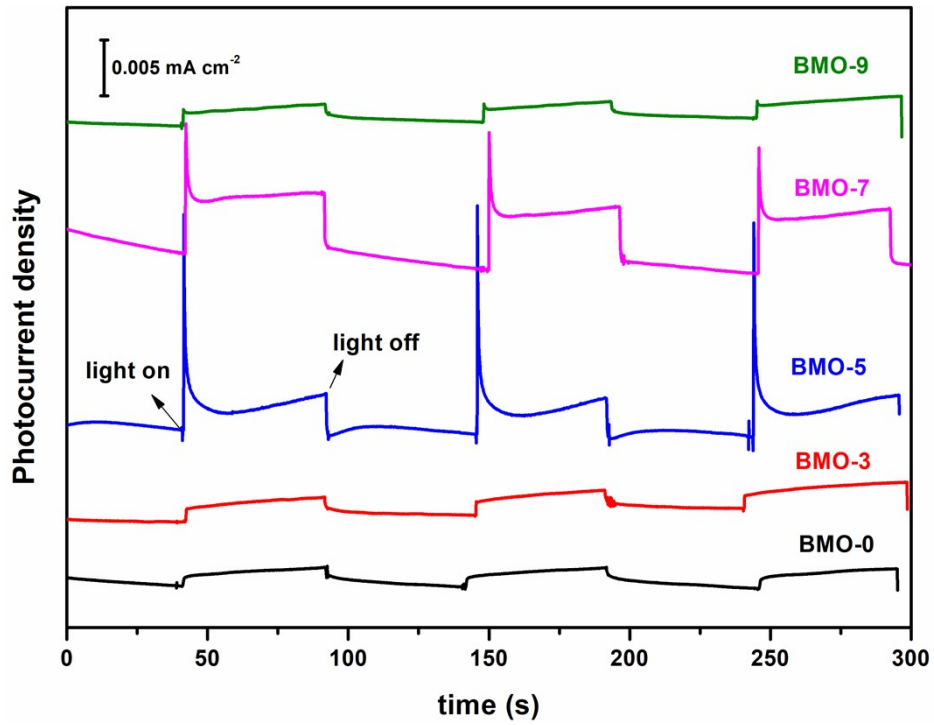


Figure S5 The chronoamperometric *i-t* curves of BMO-*x* (*x*=0, 3, 5, 7, 9) photoelectrodes were recorded at -0.4 V vs saturated calomel electrode (SCE) under chopped light irradiation

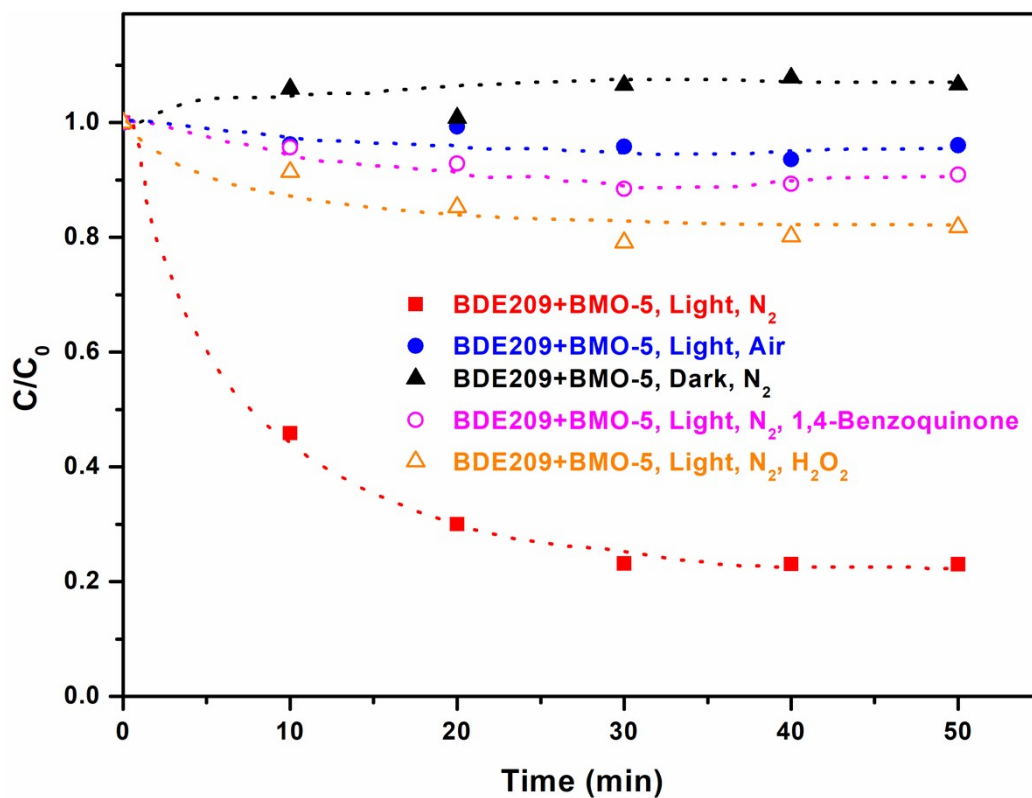


Figure S6 Effects of light and photoelectron scavengers (O_2 , H_2O_2 and 1,4-benzoquinone) on the degradation of BDE209 over BMO-5