Electronic Supplementary Information for

Facile synthesis and photocatalytic application of hierarchical mesoporous Bi_2MoO_6 nanosheet-based microspheres

Changsheng Guo[a], Jian Xu[a*], Shanfeng Wang[a,b], Lei Li[a], Yuan Zhang[a], Xiaochen Li[b]

[a] State Key Laboratory of Environmental Criteria and Risk Assessment, and Laboratory of Riverine Ecological Conservation and Technology, Chinese Research Academy of Environmental Sciences, Beijing 100012, China

[b] Water Conservancy and Civil Engineering College, Shandong Agricultural University, Shandong, Taian 271018, PR China

*: Corresponding author. Tel.: +86-10-84915237; fax: +86-10-84913910, E-mail: xujian@craes.org.cn

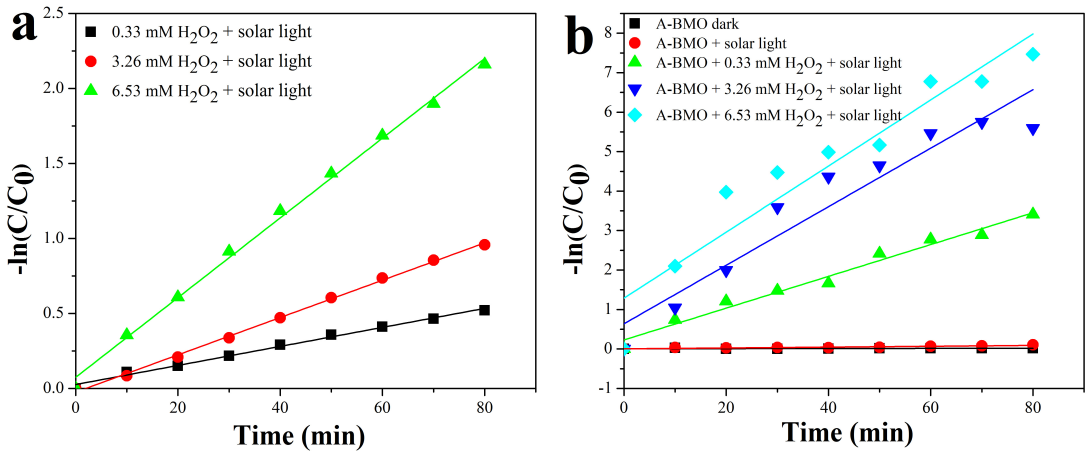

Figure S1 a) $-\ln(C/C_0)$ of photodegradation of RhB (1.0×10^{-5} M) under solar irradiation with different amounts of H_2O_2 without the catalyst. b) $-\ln(C/C_0)$ of photodegradation of RhB (1.0×10^{-5} M) in the presence of A-BMO under different conditions.

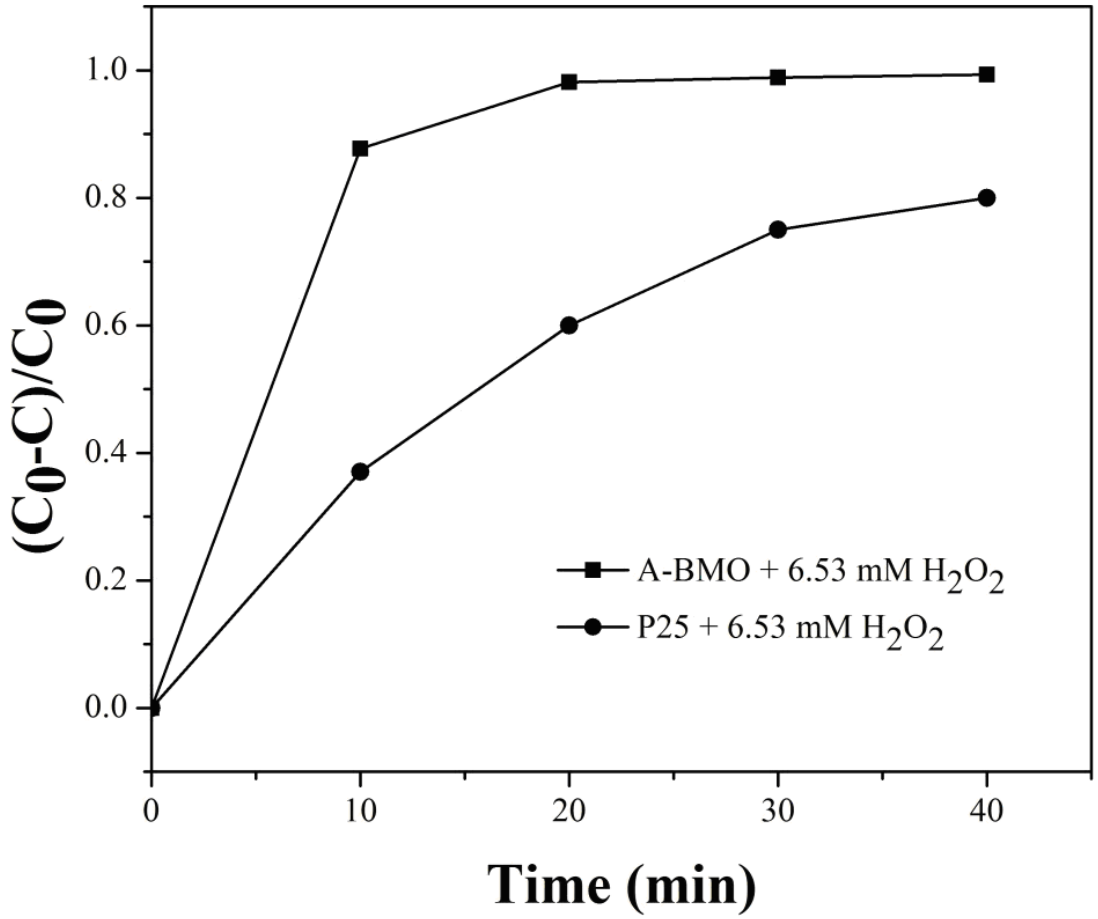

Figure S2 Photodegradation of RhB (1×10^{-5} M) in two different reaction conditions (P25: 0.5 g L^{-1}, A-BMO: 0.5 g L^{-1}).

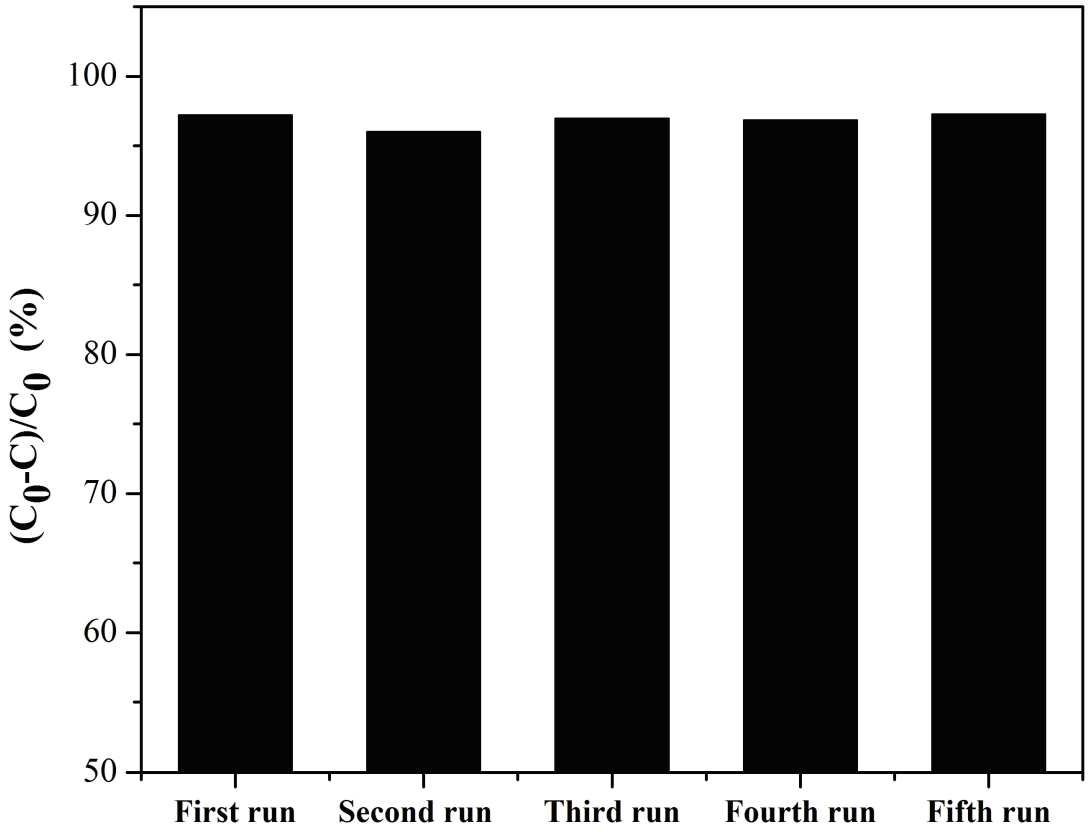

Figure S3 Cycling runs in photodegradation of RhB in the presence of the mesoporous Bi_2MoO_6 microspheres under simulated solar light irradiation (the initial RhB concentration, 1×10^{-5} M; photocatalyst dose, 0.5 g L^{-1}; in every run 3.26 mM H_2O_2 was added).

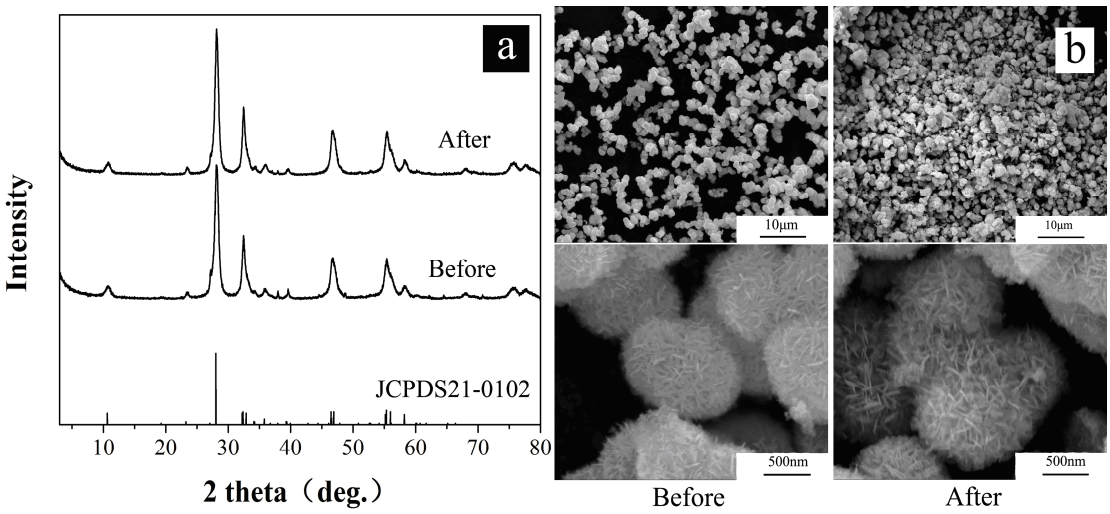

Figure S4 a) XRD patterns of Bi_2MoO_6 naonstructures before and after cycling runs; b) SEM image of the microspheres Bi_2MoO_6 naonstructures after cycling runs.

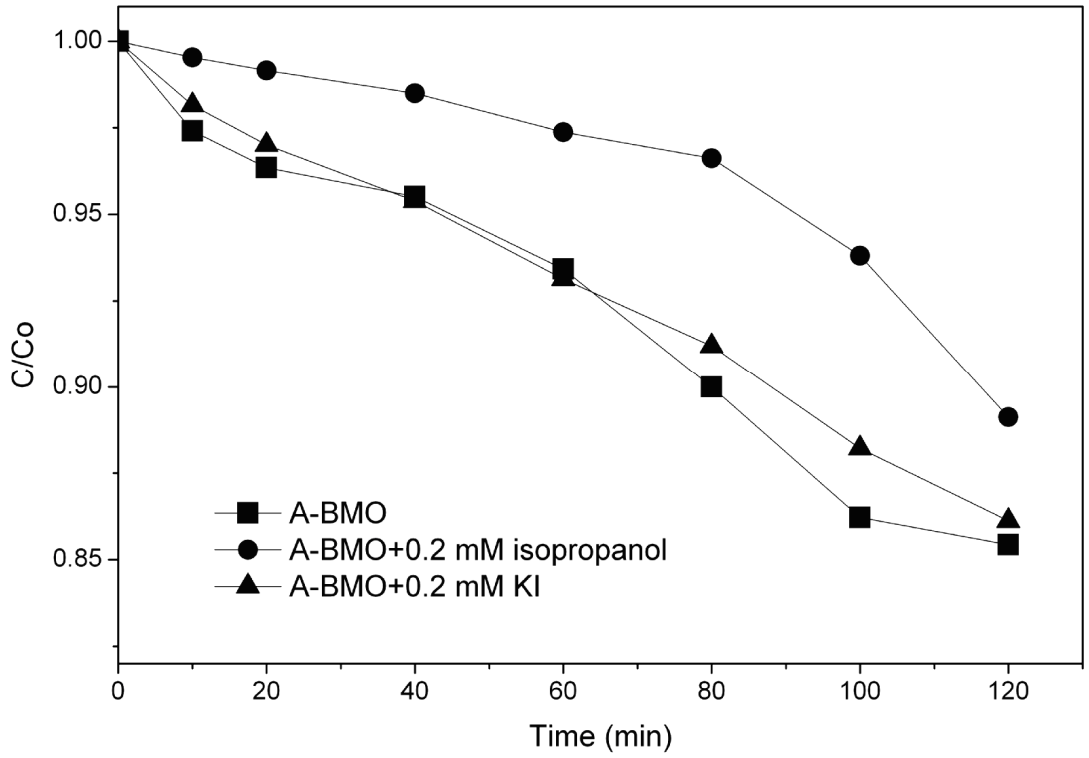

Figure S5 Photodegradation of RhB by Bi_2MoO_6 catalyst in different solutions. (Bi2MoO6 loading, 0.5 g L^{-1}; initial concentration of RhB, 1×10^{-5} M)