Supplementary material

Heterogeneous activation of peroxymonosulfate for bisphenol AF degradation with $BiOI_{0.5}Cl_{0.5}$

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9 Figures

Fig. S1

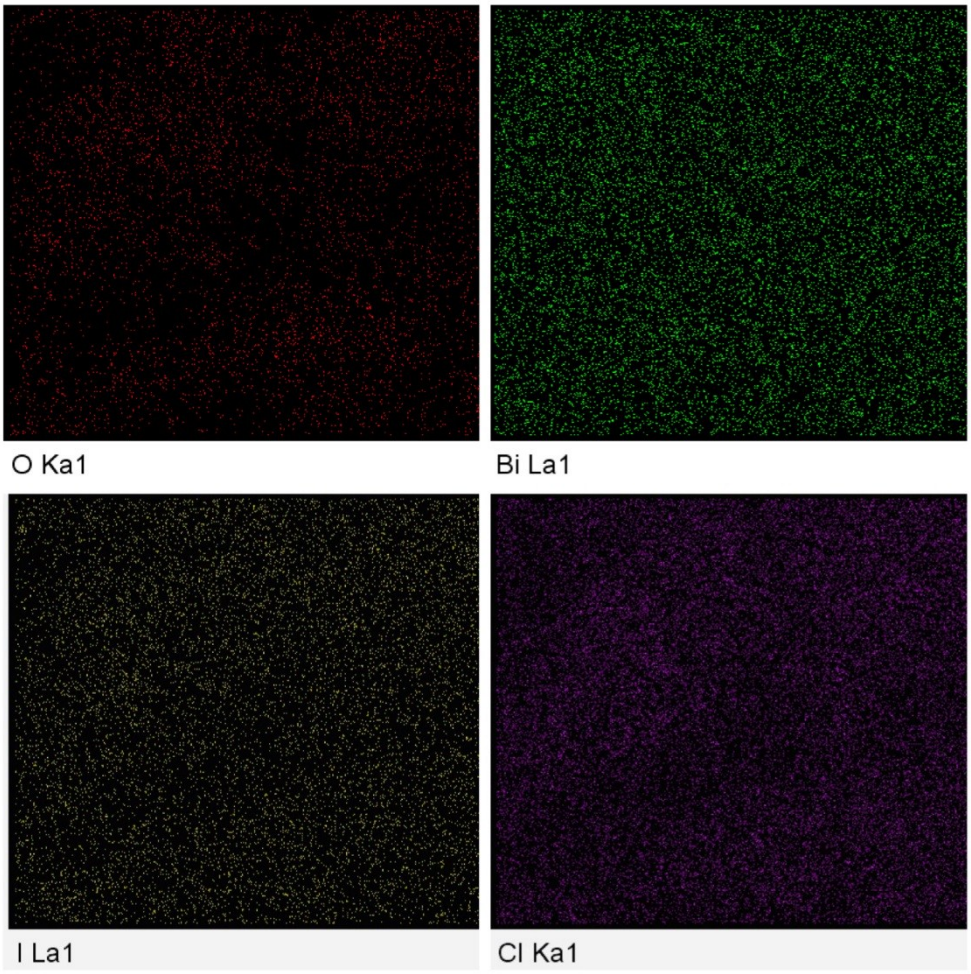

Fig. S1 EDX mappings of the $BiOI_{0.5}Cl_{0.5}$

Fig. S2

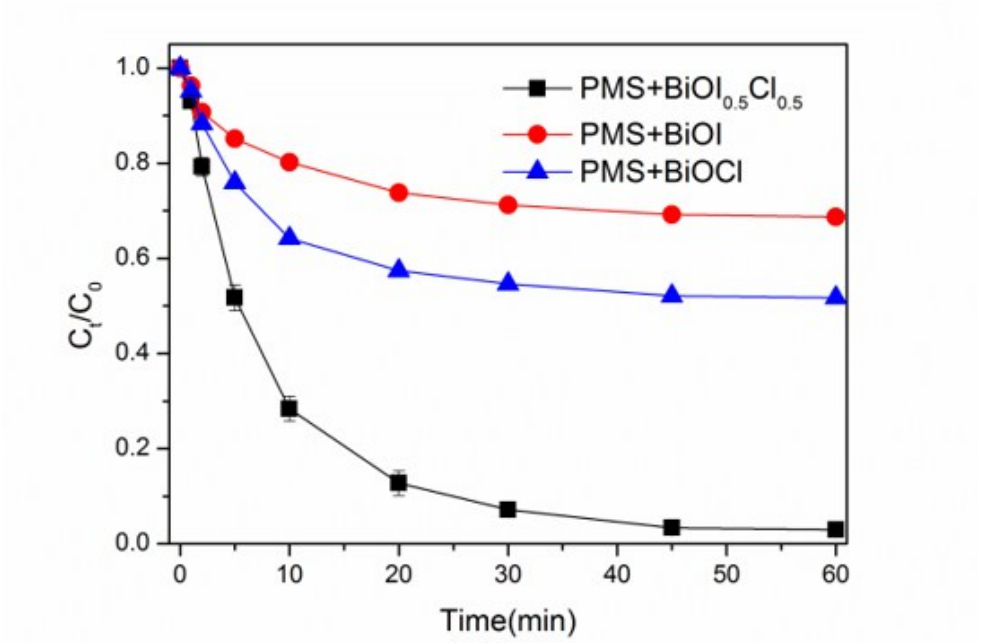

Fig. S2 Removal of BPAF in different reaction systems: PMS/$BiOI_{0.5}Cl_{0.5}$, PMS/ BiOI and PMS/ BiOCl ([BPAF]=10 mg/L, PMS/BPAF=5/1, catalyst dosage=0.5 g/L, T=298K).

Fig. S3

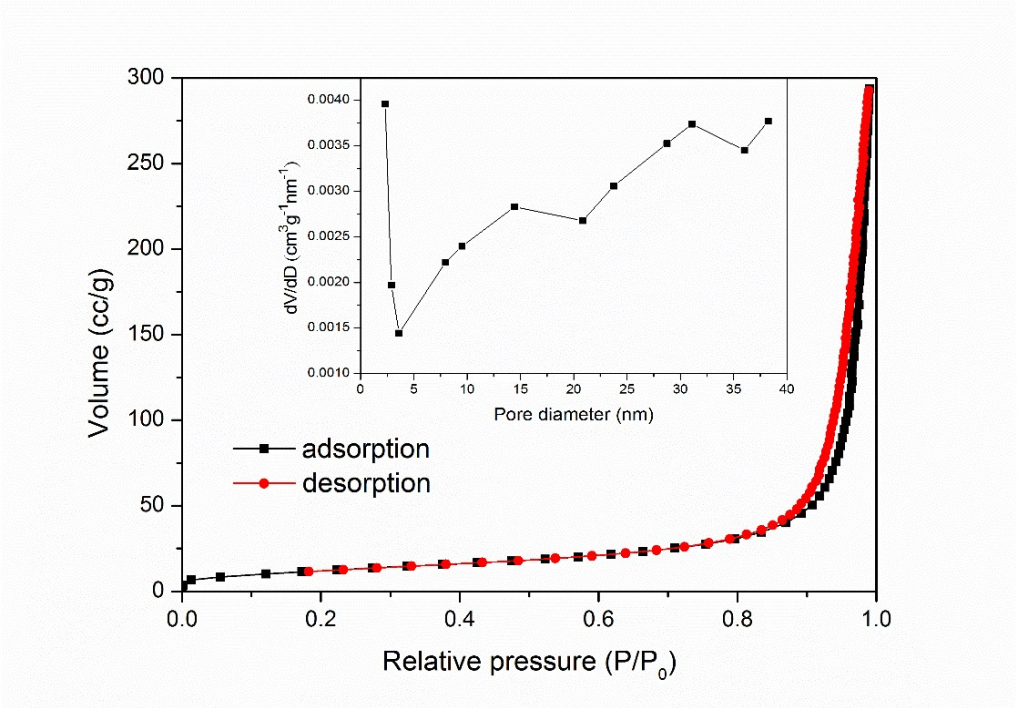

Fig. S3 Nitrogen adsorption–desorption isotherms of $BiOI_{0.5}Cl_{0.5}$.

Fig. S4

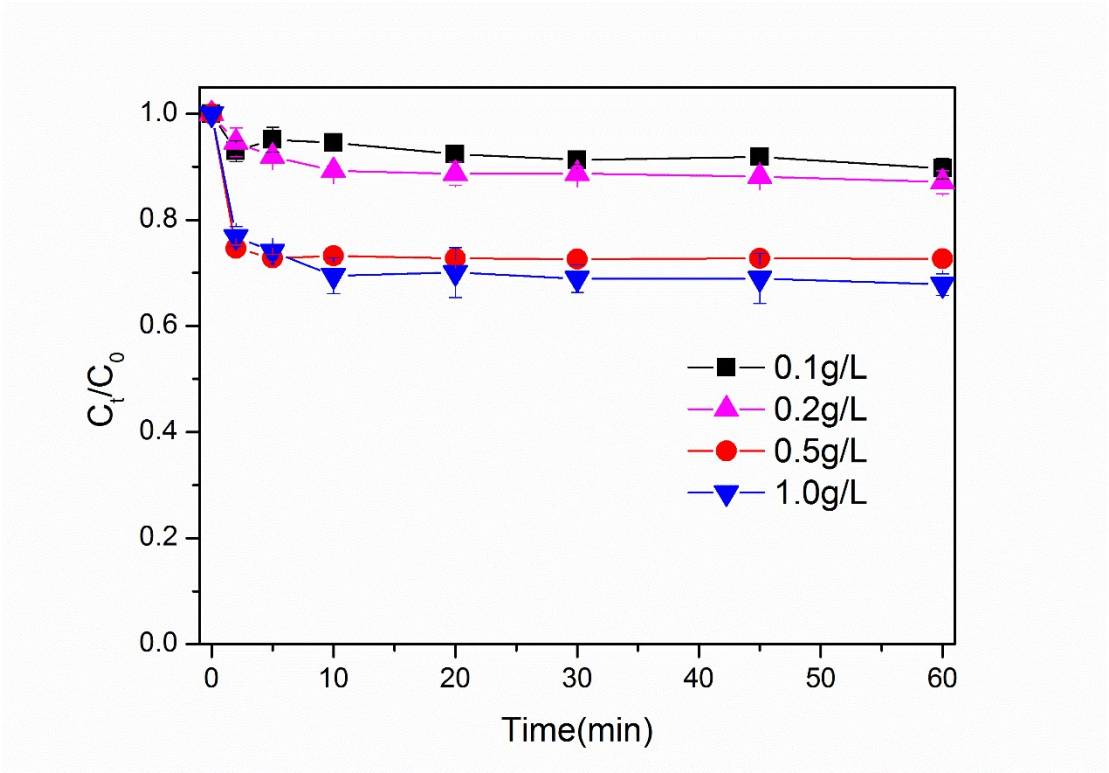

Fig. S4 The adsorption efficiencies of BPAF by varying the $BiOI_{0.5}Cl_{0.5}$ dosage ([BPAF]=10 mg/L, $BiOI_{0.5}Cl_{0.5}$ dosage=0.1-1.0 g/L, T=298K).

Fig. S5

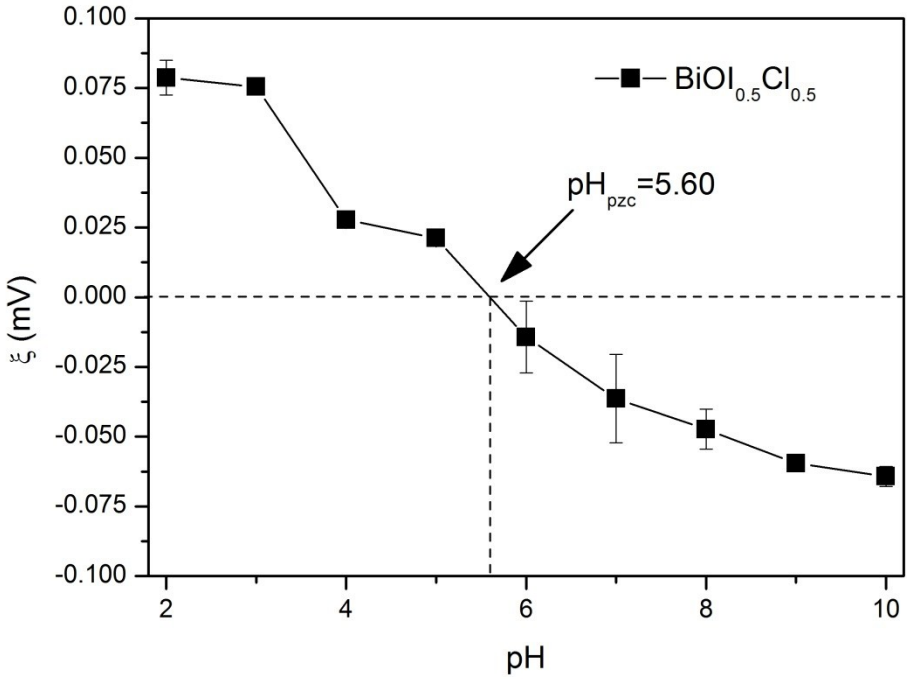

Fig. S5 Zeta potential versus pH for the as-prepared $BiOI_{0.5}Cl_{0.5}$

Fig. S6

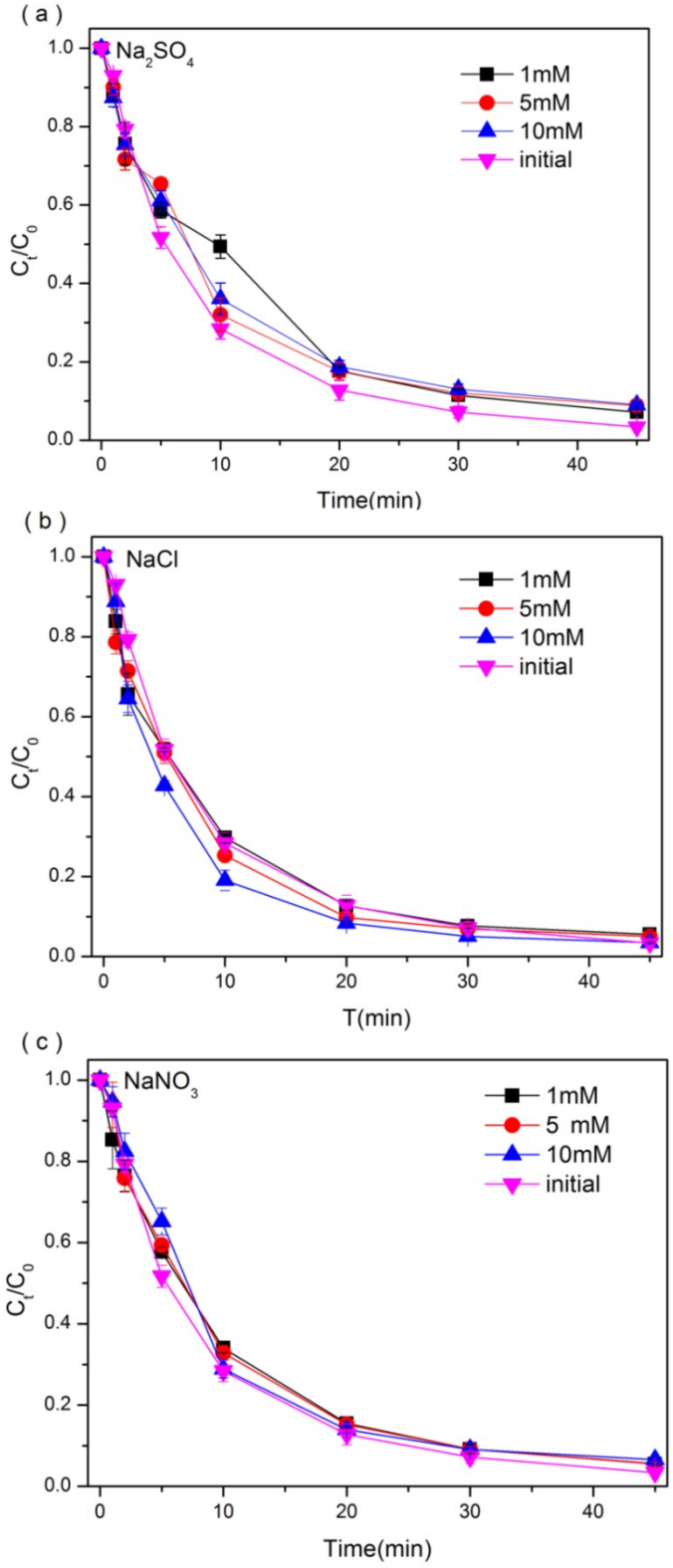

Fig. S6 Effect of initial solution (a) sulfate ion concentration, (b) chloride ion concentration and (c) nitrate ion concentration on BPAF removal efficiency ([BPAF] =10mg/L, $BiOI_{0.5}Cl_{0.5}$ dosage=0.5g/L, PMS/BPAF=5, [ions] =0-10Mm, T=298K).

Fig. S7

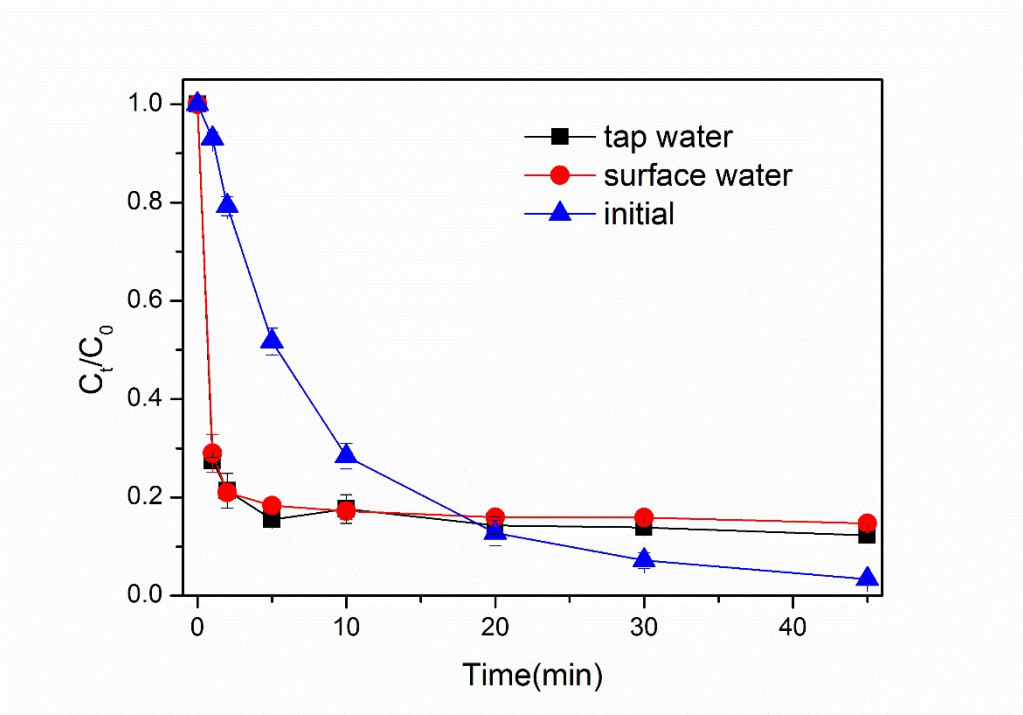

Fig. S7 Effect of different water matrices ([BPAF] =10mg/L, $BiOI_{0.5}Cl_{0.5}$ dosage=0.5g/L, PMS/BPAF=5, T=298K).

Fig. S8

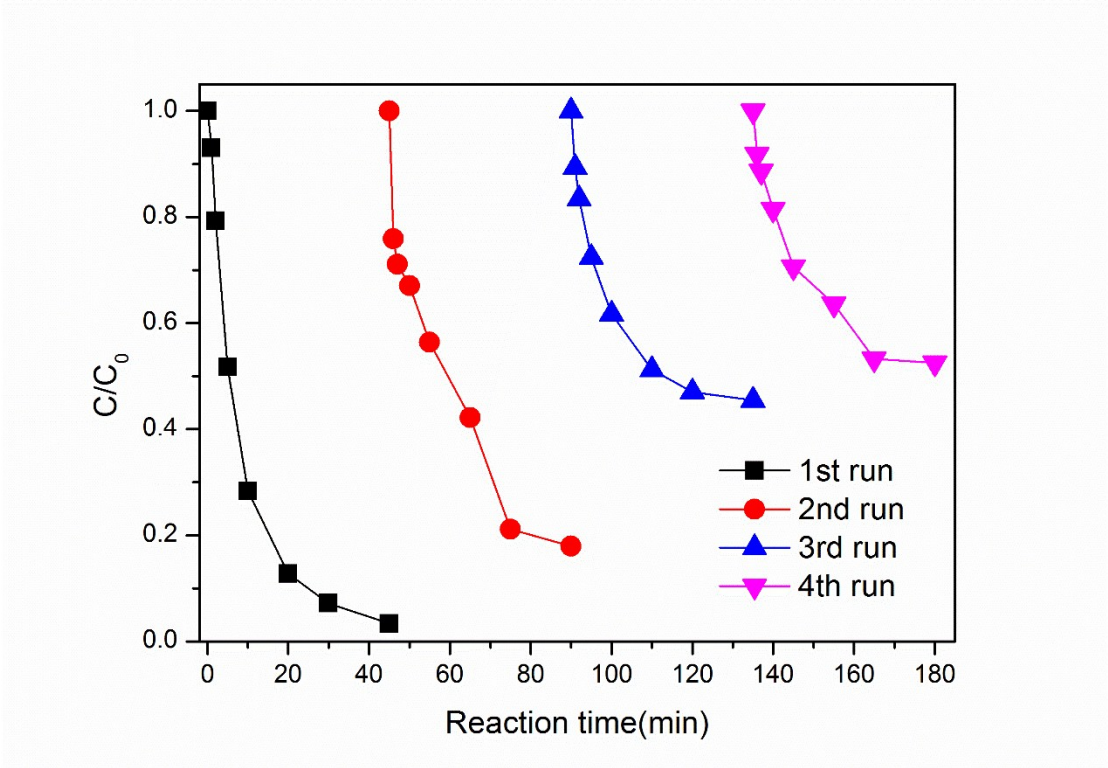

Fig. S8 The reusability of the $BiOI_{0.5}Cl_{0.5}$ samples to degrade BPAF ([BPAF] =10mg/L, $BiOI_{0.5}Cl_{0.5}$ dosage=0.5g/L, PMS/BPAF=5, T=298K).

Fig. S9

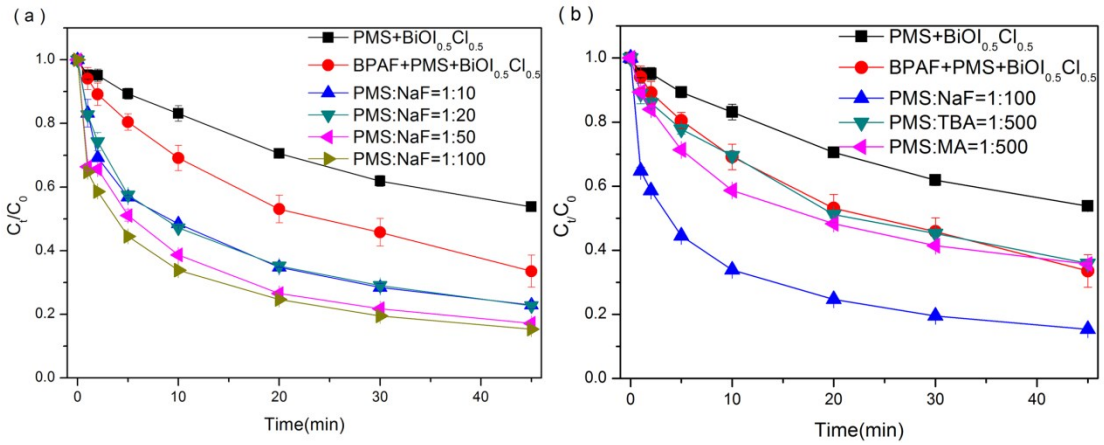

Fig. S9 (a)The degradation of the PMS in different systems and (b)in the presence of NaF , TBA and methanol as radical scavengers ([BPAF] =10mg/L, $BiOI_{0.5}Cl_{0.5}$ dosage=0.5g/L, PMS/BPAF=5, [methanol] = [TBA] =0.075mol/L, [NaF] = 0-0.015mol/L, T=298K).