

Supplementary Material for

Chlorine Disinfection Enhances the Degradation of Biodegradable Microplastics into Nanoplastics and Dissolved Organic Carbon in Simulated Disinfection Process

Xuefeng Jiang¹, Jianxin Fan^{1,2*}, Siyu Xu¹, Bocong Huang^{1,2}, Jiaoxia Sun^{1,2}

¹School of River and Ocean Engineering, Chongqing Jiaotong University, Chongqing 400074, China.

²Chongqing Engineering Laboratory of Environmental Hydraulic Engineering, Chongqing Jiaotong University, Chongqing 400074, China

□ Corresponding author, Jianxin Fan (Ph.D, Professor), jxfanw@cqjtu.edu.cn

Tel: 86-23-62652714; fax: 86-23-62652714.

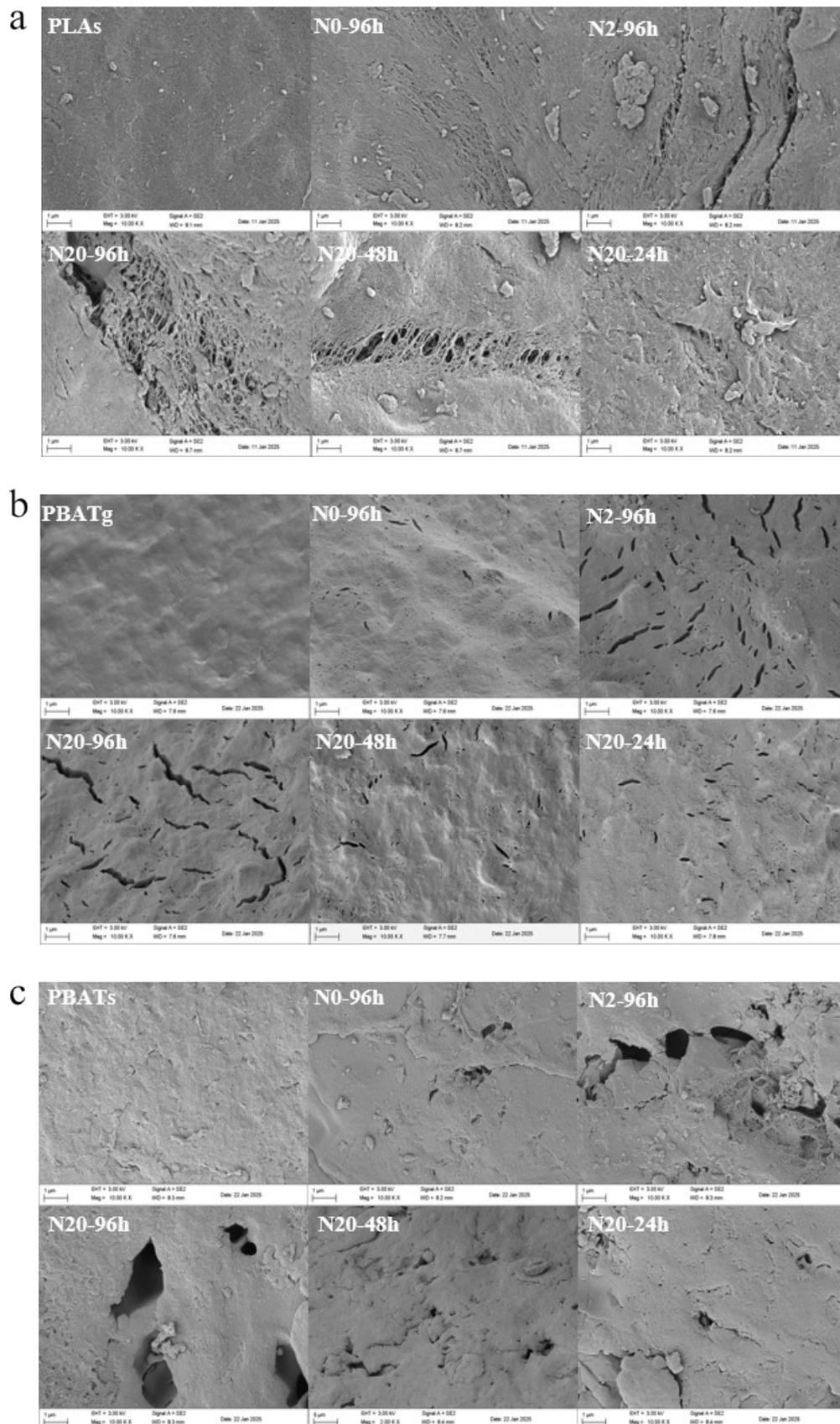


Fig. S1 Scanning electron micrographs of (a) PLAs, (b) PBATg and (c) PBATs under different aging conditions

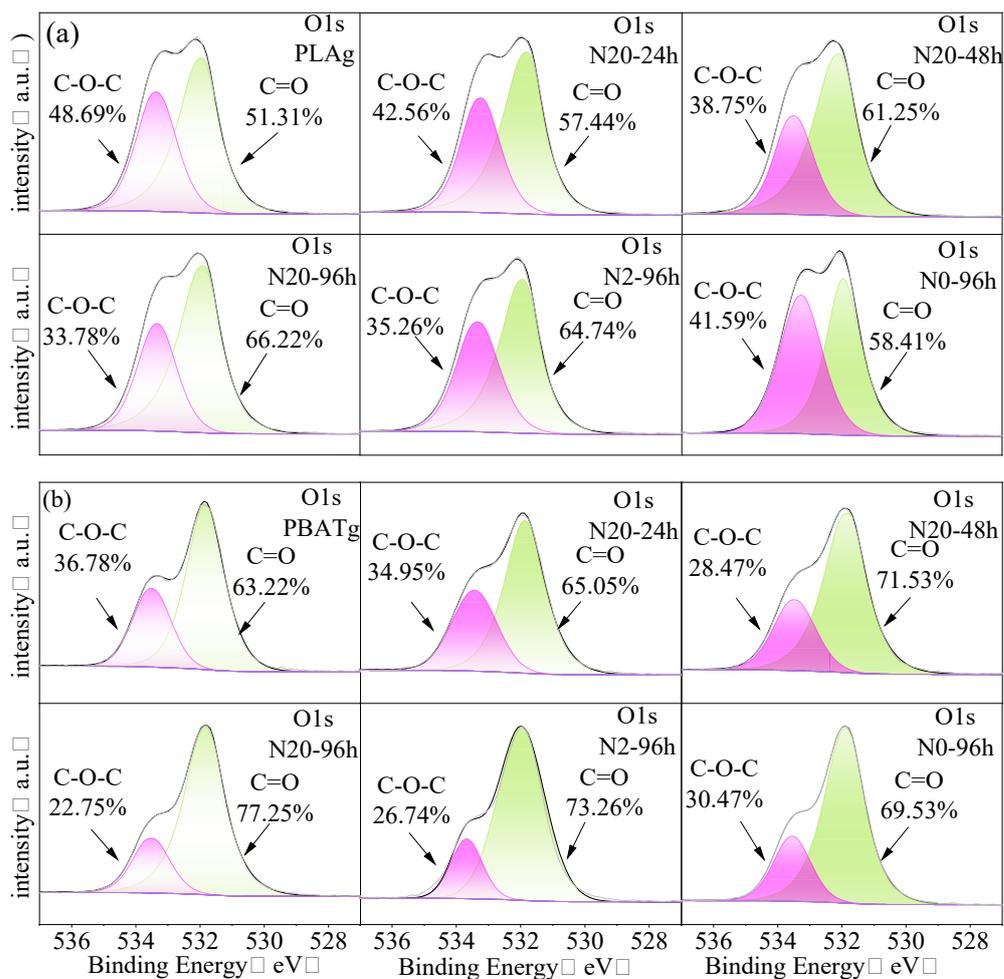


Fig.S2 XPS high-resolution spectra of O1s of PLA under different aging conditions. (a) PLAG, (b) PLAs

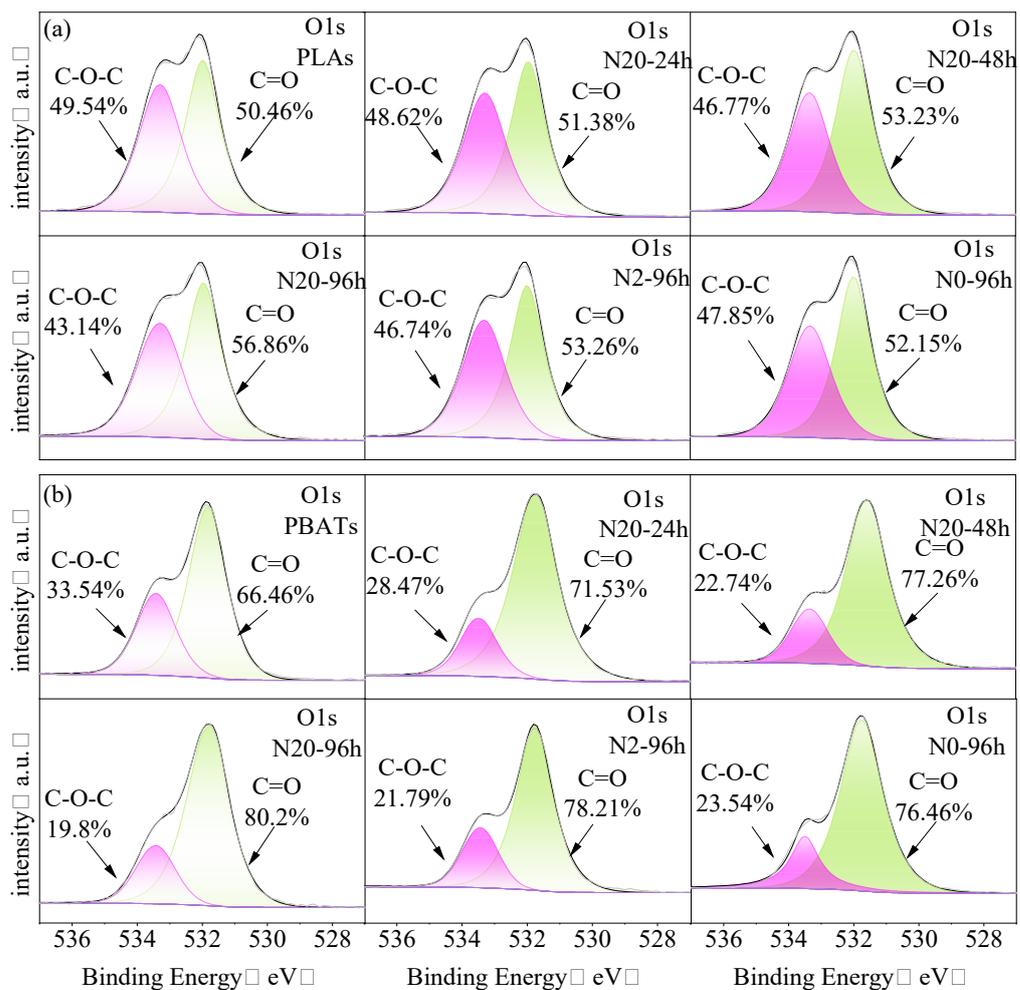


Fig. S3 XPS high-resolution spectra of O1s of PBAT under different aging conditions. (a) PBATg, (b) PBATs

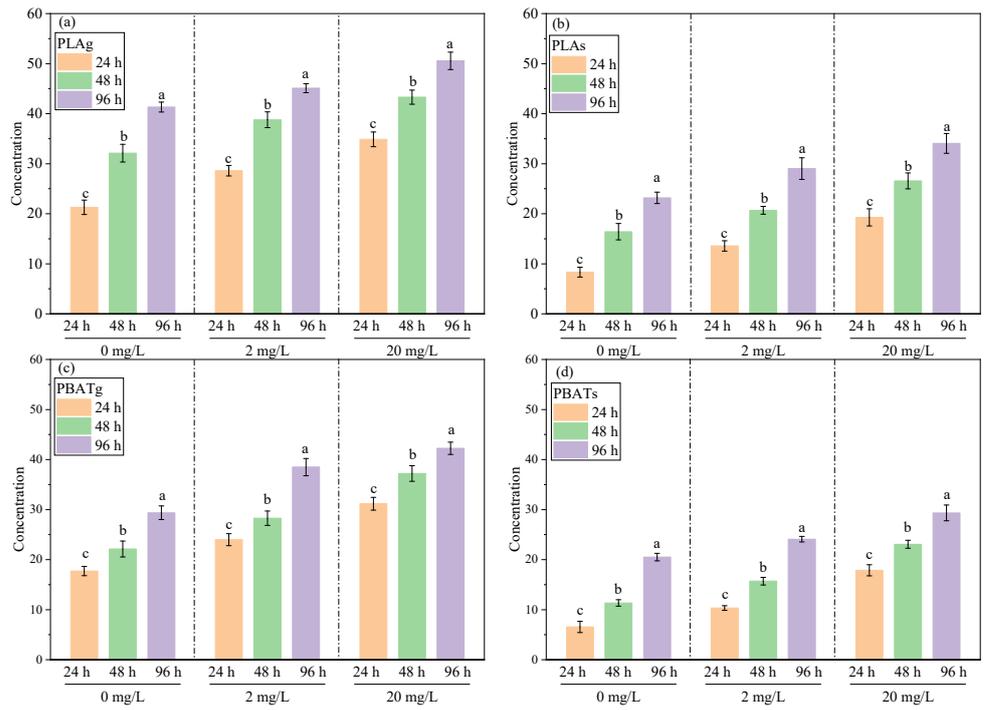


Fig.S4 Determination of soluble organic carbon (DOC) in the filtrate after aging of (a) PLAG, (b) PLAs, (c) PBATg and (d) PBATs