

Supplementary material

for

Degradation of sulfachloropyridazine by UV-C/persulfate: kinetics, key factors, degradation pathway

Jiabin Dan^{a#}, Qiongfang Wang^{a#}, Kun Mu^a, Pinhua Rao^{a*, b, c}, Lei Dong^{d, e}, Xin Zhang^e,
Zedi He^a, Naiyun Gao^d, Jincheng Wang^a

^a College of Chemistry and Chemical Engineering, Shanghai University of Engineering
Science, Shanghai 201600, China

^b Jiangsu Dingxin Environmental Protection Technology Co., LTD

^c Jiangsu Zhuhai Active Carbon Co., LTD

^d State Key Laboratory of Pollution Control Reuse, Tongji University, Shanghai
200092, China

^e Shanghai Municipal Engineering Design Institute (Group) Co., LTD

Co-first authors

* Corresponding author

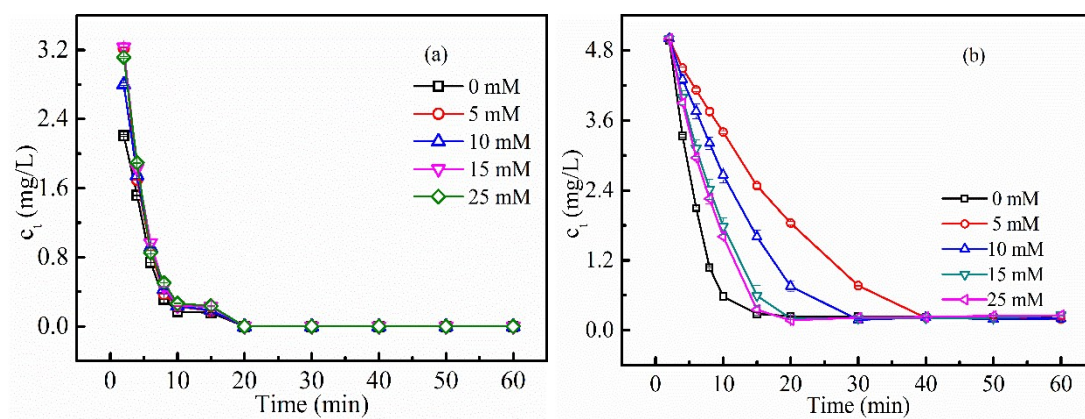


Fig. S1. Influences of SCP degradation in different concentrations of *TBA(a)*/*MeOH(b)*. Condition: [SCP]=16.3 μ M; [BA]= 24.2 μ M; [PS]=1.0 mM; [H₂O₂]= 1.21 μ M; [TBA]= 10 mM; pH=6.3; 25 °C; light intensity: 461 μ W/cm².

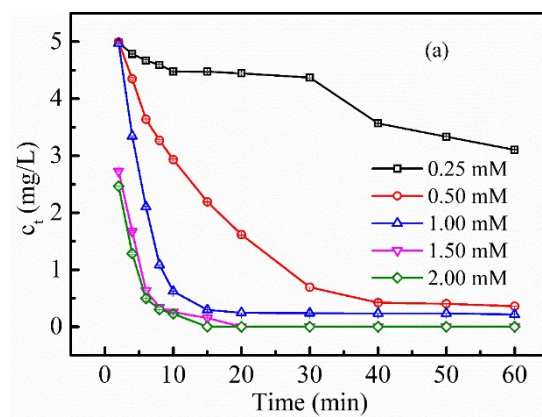


Fig. S2. Influences of SCP degradation in different initial PS dosages systems. Conditions: [SCP]=16.3 μ M; pH=6.3; 25 $^{\circ}$ C; light intensity: 461 μ W/cm 2 .

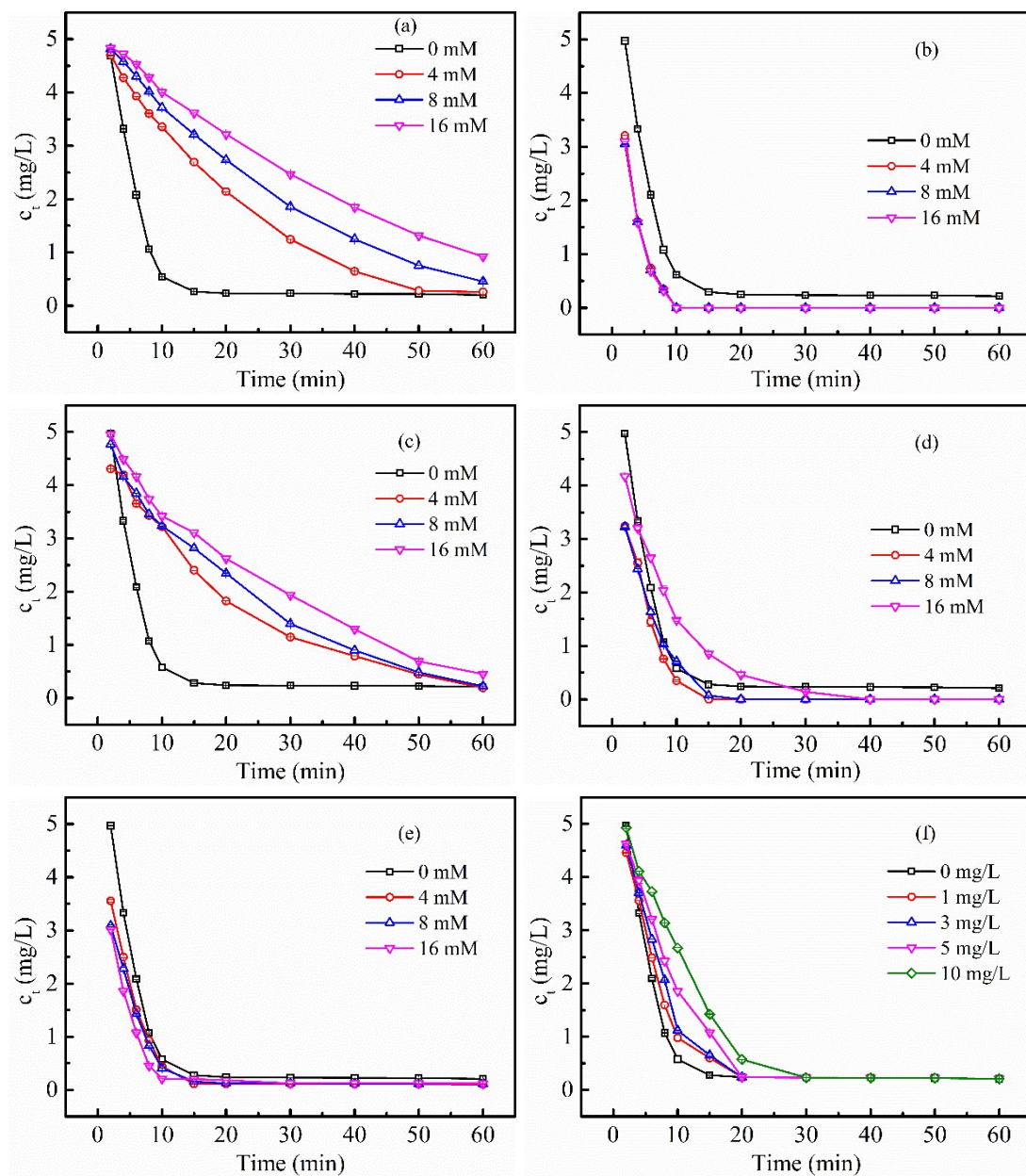
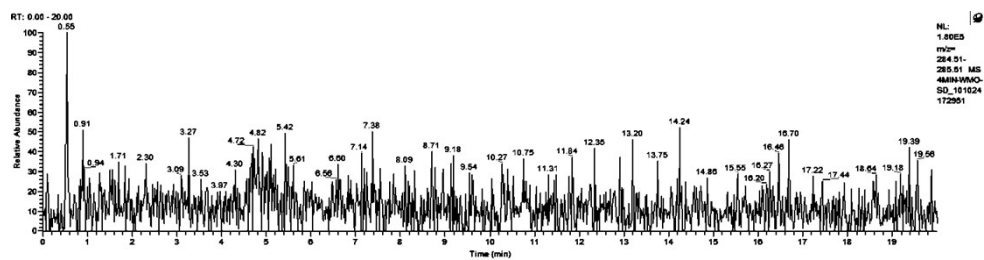
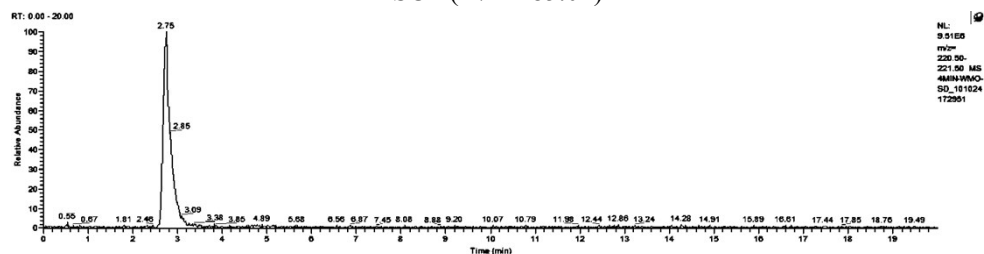


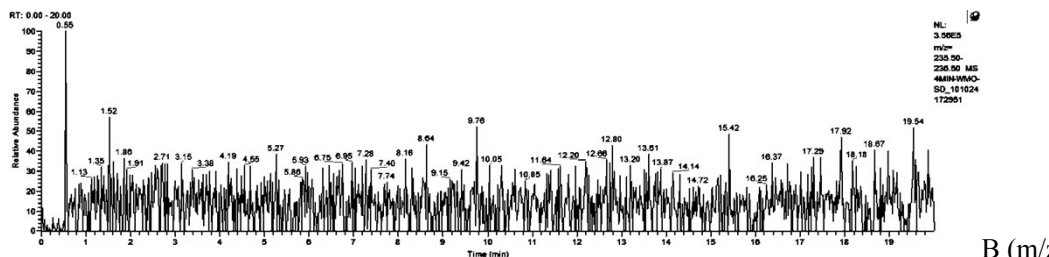
Fig. S3. Influences of HPO_4^{2-} (a), $H_2PO_4^-$ (b), HCO_3^- (c), NO_3^- (d), Cl^- (e) and NOM (f) on the degradation of SCP.



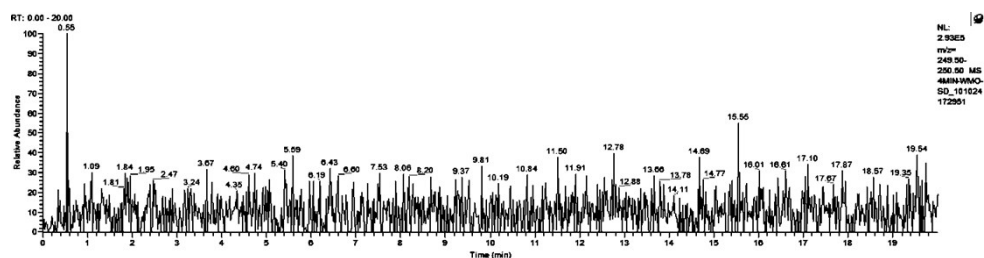
SCP ($m/z=285.01$)



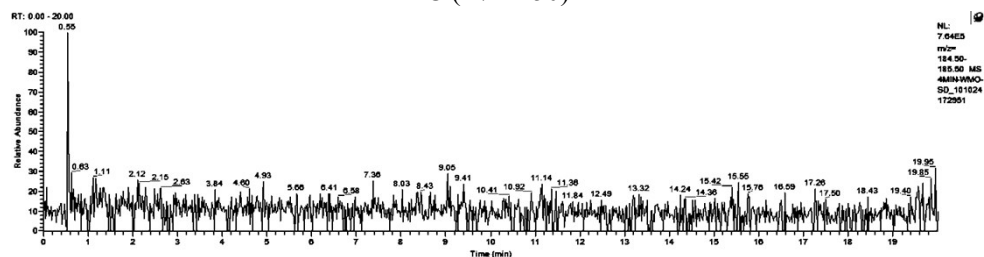
A ($m/z=221$)



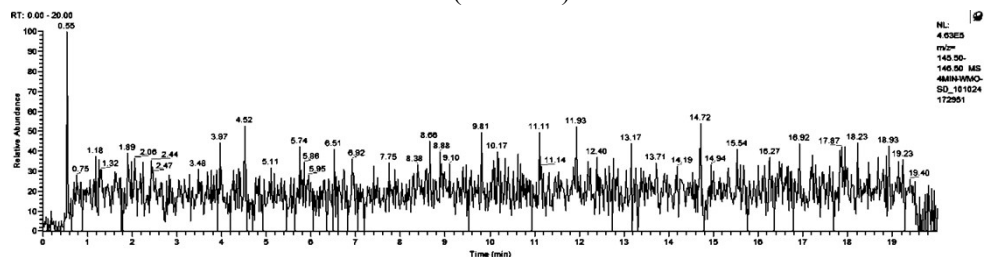
B ($m/z=236$)



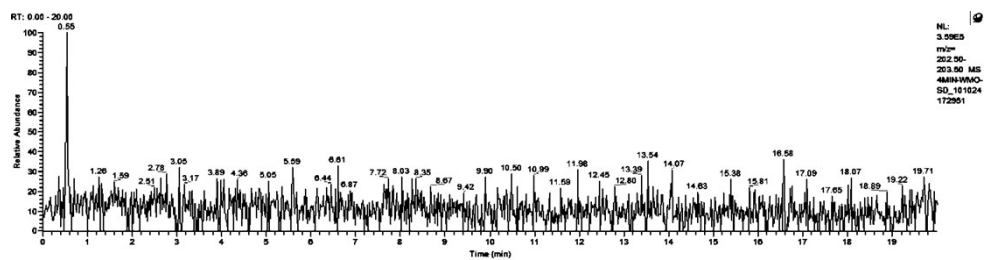
C ($m/z=250$)



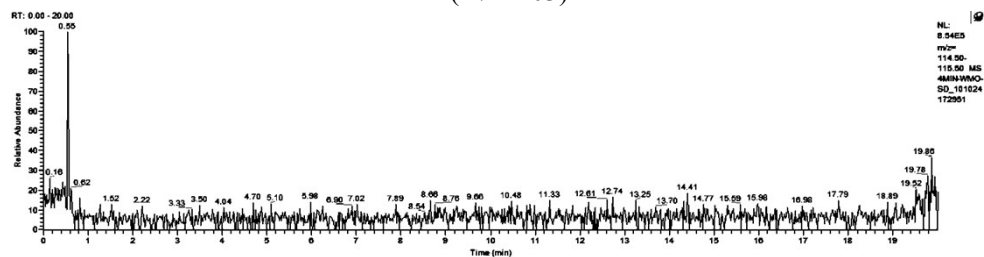
D ($m/z=186$)



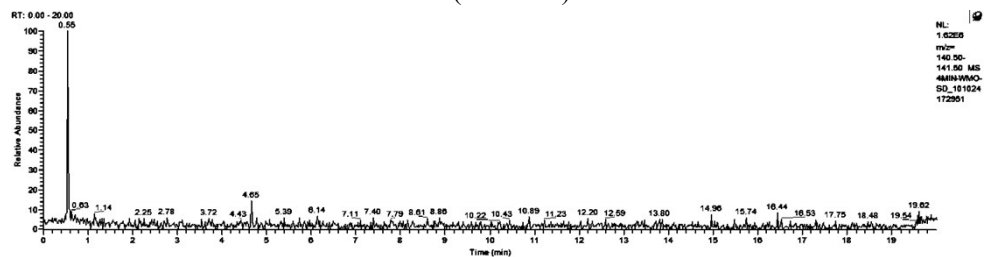
E ($m/z=146$)



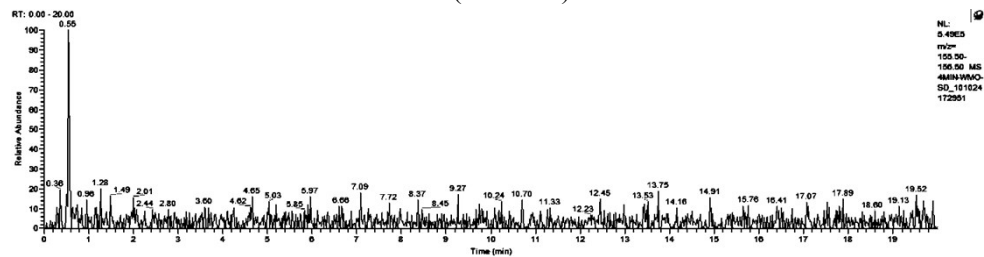
F ($m/z=203$)



G ($m/z=115$)



H ($m/z=141$)



J ($m/z=156$)

Fig. S4. Spectra of the parent ion and sub-ions

SCP $m/z=285.01$; A $m/z=221$; B $m/z=236$; C $m/z=250$; D $m/z=186$;

E $m/z=146$; F $m/z=203$; G $m/z=115$; H $m/z=141$; J $m/z=156$.