

# Supplementary Material

## **Occurrence and removal of triazine herbicides during wastewater treatment processes and their environmental impact on aquatic life**

Meng Wang<sup>1</sup>, Jiapei Lv<sup>2</sup>, Haowei Deng<sup>1</sup>, Qiong Liu<sup>1</sup>, Shuxuan Liang<sup>1,\*</sup>

<sup>1</sup> Key Laboratory of Analytical Science and Technology of Hebei Province,  
College of Chemistry and Environmental Science, Hebei University, Baoding 071002,  
China;

<sup>2</sup> State Key Laboratory of Environmental Criteria and Risk Assessment,  
Chinese Research Academy of Environmental Sciences, Beijing 100012, China

\* Correspondence: liangsx168@126.com

## **Figure captions**

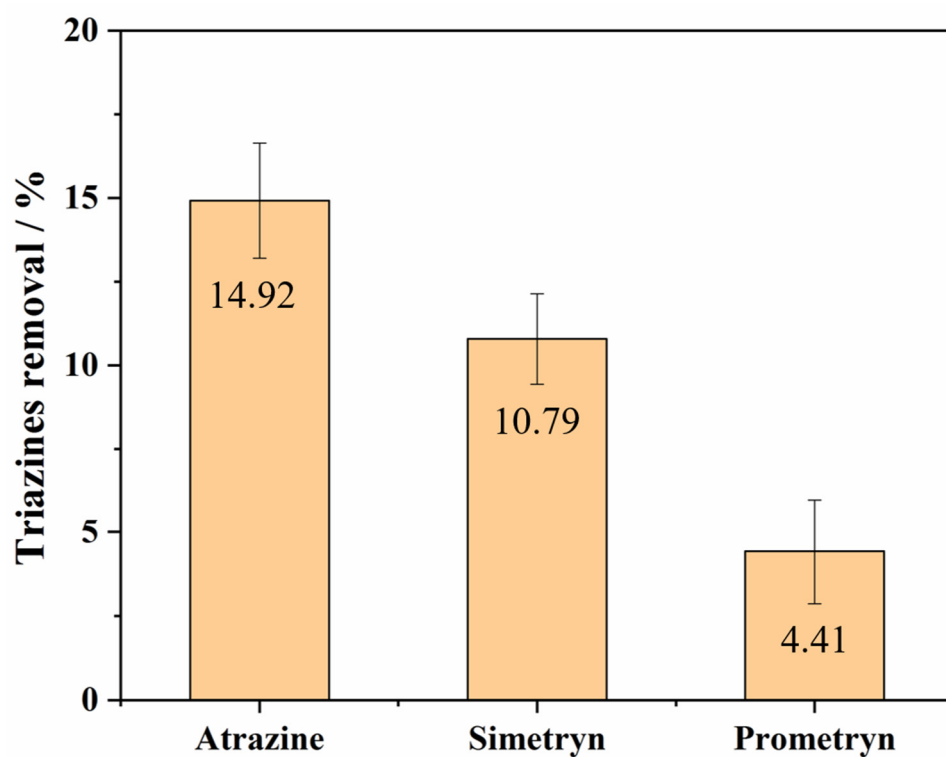
**Figure S1.** Removal of herbicides in the municipal wastewater treatment plant.

**Figure S2.** WCSI values of the herbicides in the WWTP effluent.

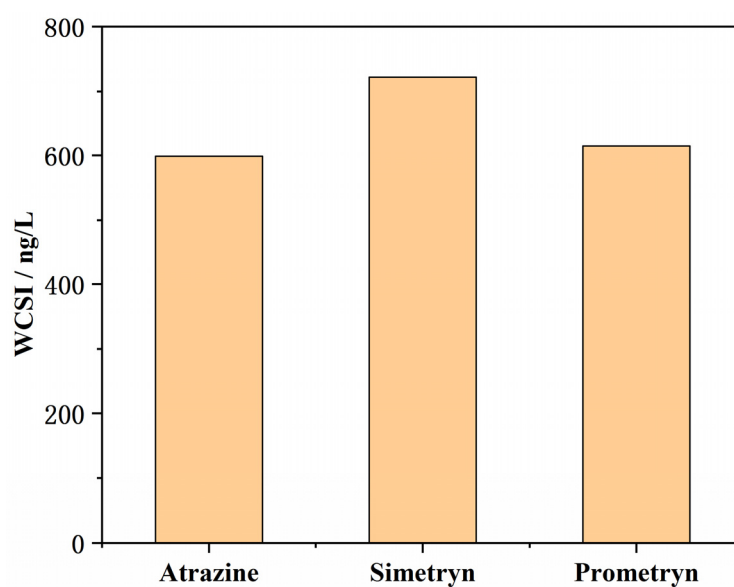
## **Table legends**

**Table S1.** Characteristics of wastewater in different units (n=3).

**Table S2.** Comparison of the individual herbicide concentrations in wastewater.



**Fig. S1.** Removal of herbicides in the municipal wastewater treatment plant.



**Fig. S2.** WCSI values of the herbicides in the WWTP effluent.

**Table S1.** Characteristics of wastewater in different units (n=3).

Parameter	Influent	Primary sedimentation tank	End aeration	Secondary sedimentation tank	Effluent
SS (mg/L)	353.67±3.21	283.00±11.79	3656.67±30.55	4.10±0.2	3.33±0.15
COD (mg/L)	232.97±0.97	121.13±2.58	36.93±0.70	32.61±1.19	31.63±1.15
TN (mg/L)	46.77±1.62	45.59±2.28	6.89±0.03	7.07±0.23	6.52±0.11
TP (mg/L)	6.17±0.35	5.60±0.33	0.35±0.02	0.26±0.02	0.23±0.03
T (°C)	28.57±0.06	28.47±0.06	28.63±0.06	28.57±0.06	28.27±0.06

**Table S2.** Comparison of the individual herbicide concentrations in wastewater.

Herbicides	Concentration (ng/L)			
	2010 <sup>(a)</sup>	2011 <sup>(a)</sup>	2013 <sup>(b)</sup>	This study
Atrazine	3.90-27.44	7.20-36.90	1.23-7.4	89.43-121.97
Propazine	6.74-277.40	1.53-5.70	ND	ND
Simazine	5.00	4.55-37.79	1.61-12.5	ND
Simetryn	ND	ND	ND	77.83-102.77
Terbutylazine	ND	2.15-35.54	8.8-10.3	ND
Terbutryn	5.00-182.87	0.82-73.46	ND	ND
Prometryn	ND	ND	ND	27.32-30.76

a-(Campo et al., 2013); b-(Köck-Schulmeyer et al., 2013); ND-not detected.