

**Impacts of advanced treatment processes on elimination and deactivation of
antibiotic resistance genes in a municipal wastewater treatment plant**

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Table S1. Sequence of primers used in this study

Primer	Sequence (5'-3')	Amplimer (bp)	Annealing temperature (°C)	Reference	
<i>tetA</i>	<i>tetA-F</i> <i>tetA-R</i>	GCGCGATCTGGTTCACCTCG AGTCGACAGYRGCGCCGGC	164	61	[1]
<i>tetO</i>	<i>tetO-F</i> <i>tetO-R</i>	TACGGARAGTTTATTGTATAACC TGGCGTATCTATAATGTTGAC	171	50.3	[2]
<i>tetW</i>	<i>tetW-F</i> <i>tetW-R</i>	GAGAGCCTGCTATATGCCAGC GGGCGTATCCACAATGTTAAC	168	63	[2]
<i>sulI</i>	<i>sulI-F</i> <i>sulI-R</i>	CGCACCGGAAACATCGCTGCAC TGAAGTTCCGCCGCAAGGCTCG	163	55.9	[3]
<i>sulIII</i>	<i>sulIII-F</i> <i>sulIII-R</i>	TCCGGTGGAGGCCGGTATCTGG CGGGAATGCCATCTGCCTTGAG	191	60.8	[3]
<i>bla_{CTX-M}</i>	<i>bla_{CTX-M-F}</i> <i>bla_{CTX-M-R}</i>	AGTGAAAGCGAACCGAATC CTGTCACCAATGCTTTACC	365	55	[4]
<i>intI1</i>	<i>intI1-F</i> <i>intI1-R</i>	CCTCCCGCACGATGATC TCCACGCATCGTCAGGC	280	50	This study
16S rDNA	<i>1369F</i> <i>1492R</i>	CGGTGAATACGTTTCYCGG GGWTACCTTGTTACGACTT	143	50	[5]

Table S2. Detection of antibiotics in influent of the WWTP

Antibiotics ($\mu\text{g/L}$)	November	December	January	February	March	April
sulfamerazine	0.18	0.14	0.32	0.25	0.44	0.11
tetracycline	0.57	0.38	0.81	0.63	0.52	0.71

Table S3. Bray-Curtis similarity between different sampling sites

	A	B	C	D	E	F
B	95.178					
C	87.916	92.696				
D	81.273	85.968	93.203			
E	27.076	29.416	33.28	37.231		
F	19.774	21.561	24.542	27.627	82.402	

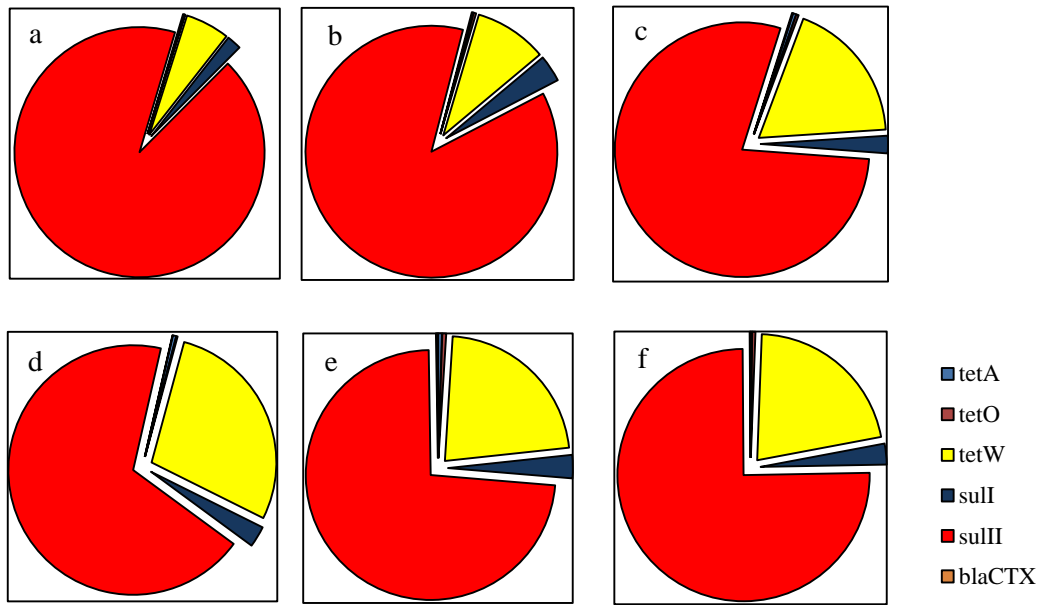


Fig.S1 Characteristics of ARGs (ARG/total ARGs) in influents of WWTP ((a) November, (b) December, (c) January, (d) February, (e) March, (f) April)

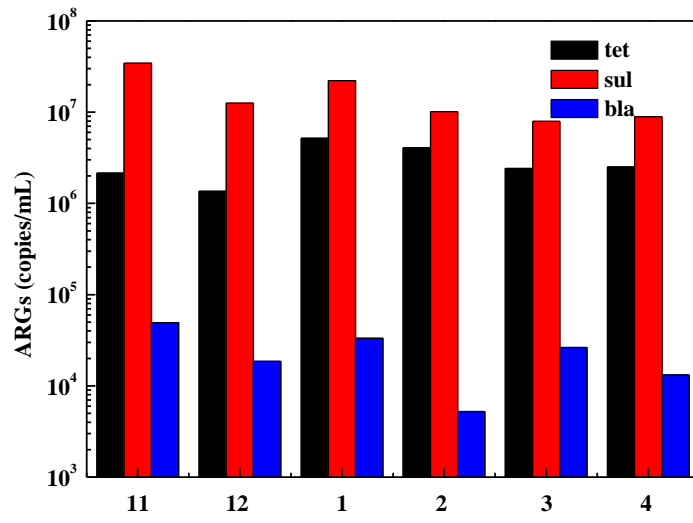


Fig.S2 Distribution of ARGs in the influent of WWTP in different month

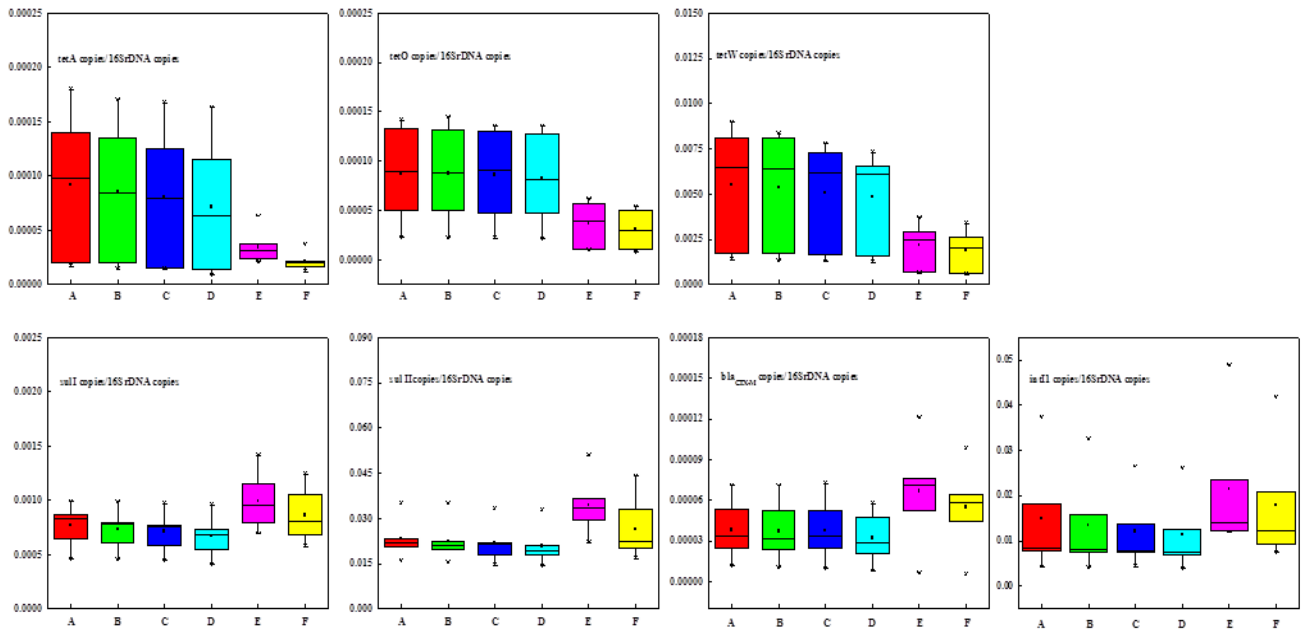


Fig.S3 Relative abundance of ARGs and *int1* in sampling points of WWTP

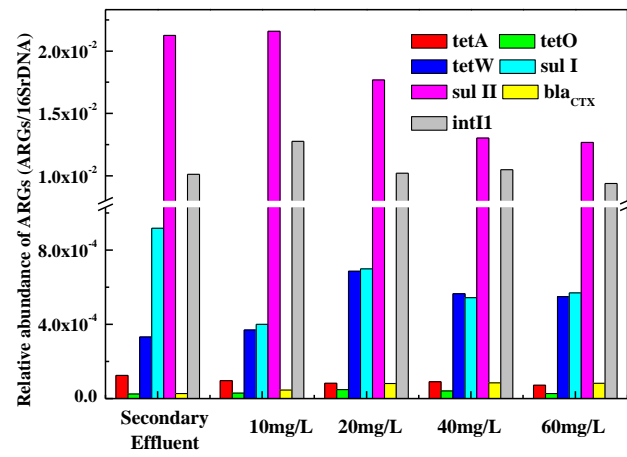


Fig.S4 Relative abundance of ARGs and *intI1* in wastewater before and after ozone disinfection

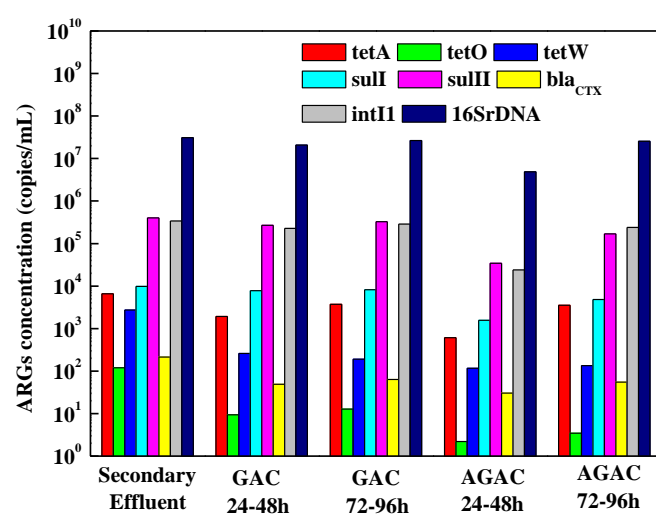


Fig.S5 Absolute abundance of ARGs, *intI1* and 16Sr DNA in wastewater before and after granular activated carbon treatment

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