Supplementary Material

Emission Characteristics and Relationships among PCDD/Fs, Chlorobenzenes, Chlorophenols and PAHs in the Stack Gas from Two Municipal Solid Waste Incinerators in China

Tianjiao Wang[a], Tong Chen[a,*], Binbin Lin, Xiaoqing Lin[a], Mingxiu Zhan[a], Xiaodong Li[a]

[a] State Key Laboratory of Clean Energy Utilization, Institute for Thermal Power Engineering, Zhejiang University, Hangzhou 310027, People's Republic of China

*Corresponding author. E-mail address: chentong@zju.edu.cn

S1. Characteristics of two MSWIs

Table S1 Characteristics of the investigated two MSWIs in China

	MSWI 1	MSWI 2
Facility type	CFB	CFB
Capacity(tons/day)	400	600-650
Furnace temperature(℃)	750-900	750-900
Average oxygen content of exhaust gas (%)	13.7%-17.5%	11.5%-15.6%
Rated evaporation capacity(tons/h)	75	49
Air pollution control device	SNCR, semi-dry scrubber, activated carbon injection and fabric filter	
The mass ratio of waste and added coal	4	9

S2. Characteristics of PCDD/F homologue distribution

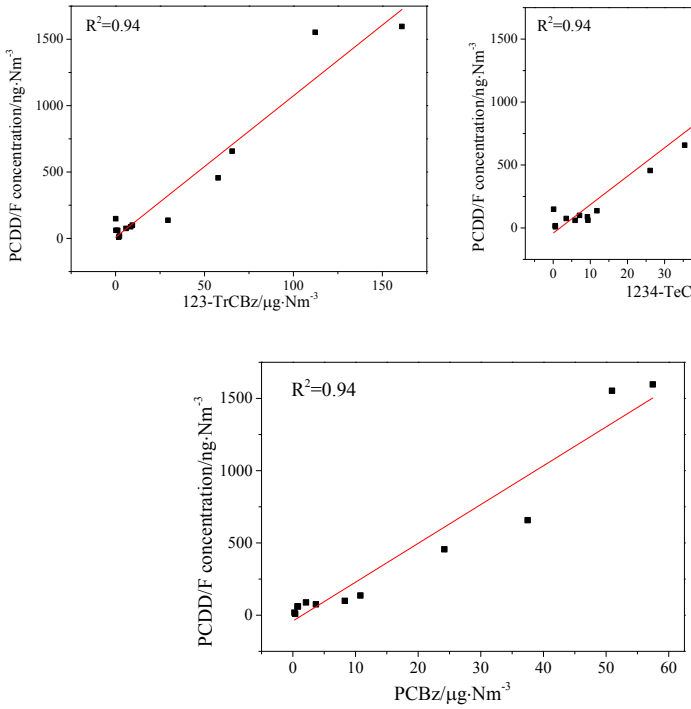


Fig.S1 Correlation between 123-TrCBz, 1234-TeCBz, PCBz and PCDD/Fs concentration

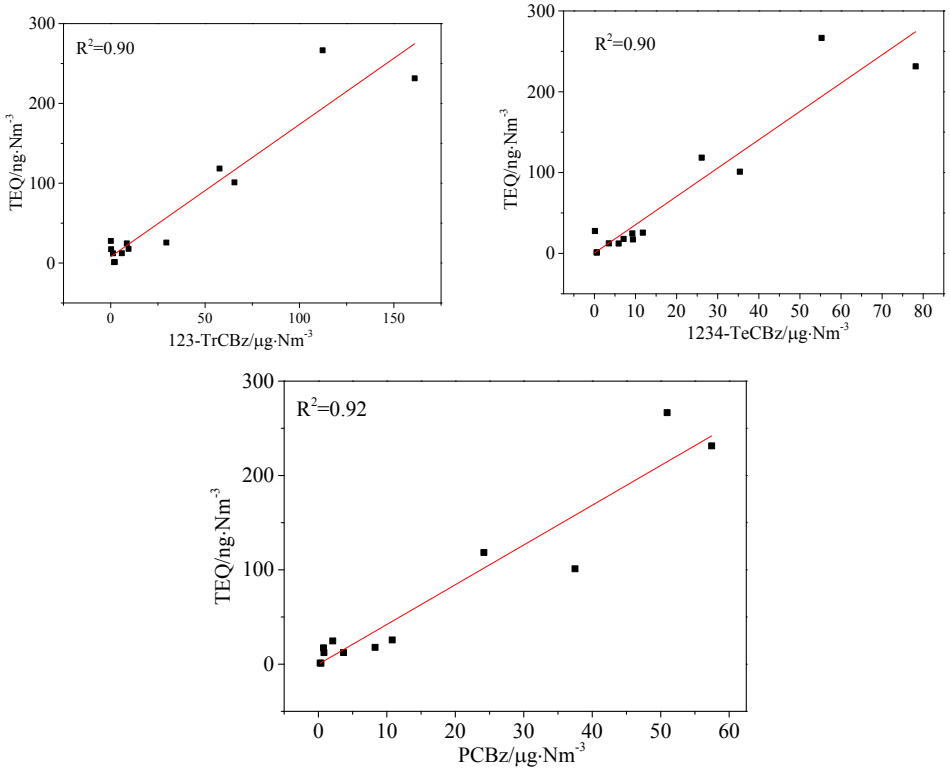
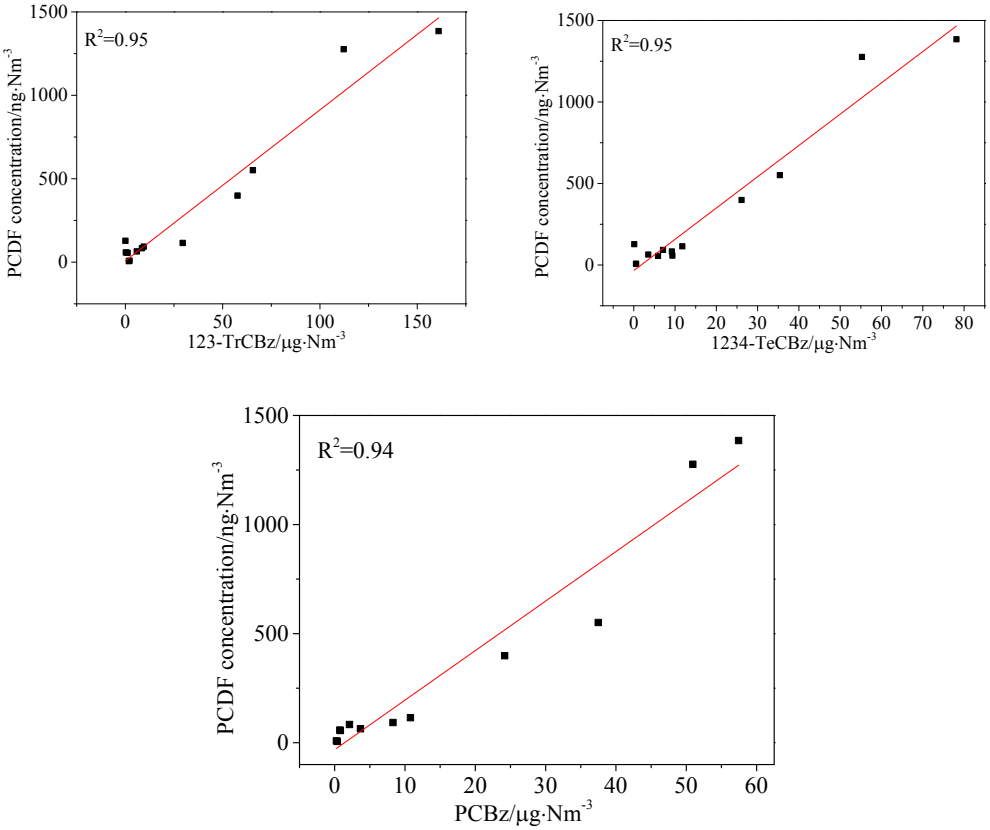


Fig.S2 Correlation between 123-TrCBz, 1234-TeCBz, PCBz and TEQ



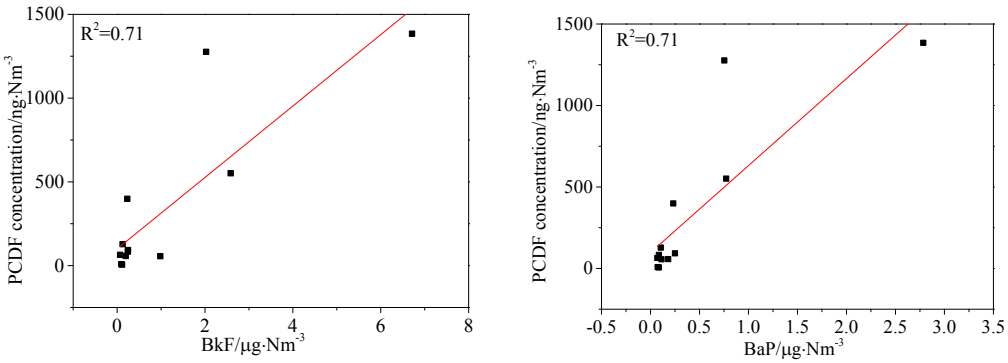


Fig.S3 Correlation between 123-TrCBz, 1234-TeCBz, PCBz, BkF, BaP and PCDFs concentration

S3. Relationships among PAHs, SO_2 and 17 toxic PCDD/F isomers

Table S2 Pearson Coefficient between PAHs, SO_2 and 17 toxic PCDD/F isomers

	NAP	ANY	ANA	FLU	PHE	ANT	FLT	PYR	BaA	CHR	BbF	BkF	BaP	IPY	DBA	BghiP	SO_2
2378-TCDD	0.059	0.457	0.445	0.275	0.434	0.357	0.299	0.289	0.484	0.626*	0.533	0.683*	0.673*	-0.286	-0.286	-0.284	0.536
12378-PeCDD	0.126	0.429	0.412	0.247	0.424	0.314	0.269	0.256	0.467	0.613*	0.540	0.698**	0.687**	-0.283	-0.283	-0.280	0.486
123478-HxCDD	0.056	0.406	0.392	0.219	0.388	0.308	0.245	0.235	0.469	0.623*	0.543	0.708**	0.690**	-0.294	-0.294	-0.291	0.517
123678-HxCDD	0.056	0.436	0.427	0.249	0.414	0.342	0.272	0.266	0.524	0.671*	0.597*	0.751**	0.735**	-0.301	-0.300	-0.298	0.559*
123789-HxCDD	0.062	0.414	0.400	0.224	0.395	0.317	0.251	0.244	0.493	0.648*	0.572*	0.738**	0.717**	-0.302	-0.302	-0.299	0.530
1234678-HpCDD	0.046	0.428	0.419	0.238	0.403	0.337	0.262	0.258	0.540	0.688**	0.618*	0.772**	0.753**	-0.302	-0.302	-0.298	0.582*
OCDD	-0.018	0.356	0.348	0.160	0.326	0.267	0.178	0.180	0.522	0.665*	0.614*	0.751**	0.736**	-0.237	-0.237	-0.232	0.636*
2378-TCDF	0.156	0.648*	0.683*	0.520	0.602*	0.588*	0.493	0.514	0.933**	0.949**	0.966**	0.941**	0.974**	-0.188	-0.187	-0.183	0.741**
12378-PeCDF	0.122	0.453	0.429	0.262	0.438	0.339	0.293	0.280	0.469	0.622*	0.529	0.698**	0.679*	-0.298	-0.297	-0.295	0.497
23478-PeCDF	0.253	0.416	0.393	0.263	0.432	0.273	0.277	0.253	0.369	0.503	0.424	0.570*	0.574*	-0.272	-0.270	-0.268	0.406
123478-HxCDF	0.105	0.422	0.401	0.229	0.408	0.313	0.257	0.248	0.489	0.644*	0.570*	0.739**	0.717**	-0.307	-0.307	-0.304	0.507
123678-HxCDF	0.107	0.410	0.387	0.216	0.397	0.301	0.247	0.237	0.470	0.630*	0.552	0.728**	0.703**	-0.310	-0.310	-0.307	0.495
123789-HxCDF	0.070	0.395	0.375	0.204	0.378	0.294	0.236	0.226	0.444	0.607*	0.520	0.698**	0.674*	-0.306	-0.306	-0.303	0.499
234678-HxCDF	0.110	0.406	0.382	0.211	0.394	0.298	0.244	0.234	0.474	0.636*	0.560*	0.739**	0.711**	-0.316	-0.315	-0.312	0.496
1234678-HpCDF	0.080	0.418	0.401	0.225	0.398	0.320	0.255	0.248	0.505	0.662*	0.586*	0.756**	0.731**	-0.315	-0.315	-0.312	0.532
1234789-HpCDF	0.087	0.418	0.400	0.222	0.395	0.321	0.253	0.247	0.512	0.671*	0.595*	0.766**	0.739**	-0.307	-0.306	-0.303	0.536
OCDF	0.128	0.399	0.373	0.189	0.365	0.293	0.215	0.212	0.505	0.661*	0.591*	0.756**	0.737**	-0.208	-0.208	-0.204	0.513

**. Significant at 0.01 level (two-tailed); *. significant at 0.05 level (two-tailed).