

Supplementary information

Figure S1. First order fitting curve of thermogravimetric reaction kinetics.

Figure S2. Heavy metal content in the fly ash.

Table S1. Heavy metal concentration in the flue gas.

Table S2. The leaching toxicity behaviour of heavy metal.

Table S1. Heavy metal concentration in the flue gas.

Conditions	Concentration/ (mg/m ³)						
	As	Cd	Cr	Cu	Ni	Pb	Zn
A	0.17	0.01	0.06	0.18	0.96	1.63	2.55
B	0.27	0.01	0.06	0.26	0.47	1.71	1.97
C	0.00	0.00	0.10	0.10	0.70	0.30	0.00
D-1	0.29	0.02	0.16	0.18	1.14	1.82	3.3
D-2	0.19	0.01	0.11	0.20	0.89	1.40	4.08
D-3	0.01	0.01	0.07	0.07	0.80	1.39	3.65
D-4	0.17	0.01	0.04	0.23	0.98	0.21	2.39
E-1	0.08	0.01	0.00	0.09	0.83	3.88	0.94
E-2	0.02	0.08	0.05	0.14	0.45	1.82	1.91

Table S2. The leaching toxicity behaviour of heavy metal.

Experiment condition	Leachate concentration (mg/L)						
	As	Cd	Cr	Cu	Ni	Pb	Zn
A	0.13	0.01	0.48	3.88	0.36	0.05	14.99
B	0.02	0.01	0.74	1.45	0.53	0.00	20.29
C	0.01	0.00	0.02	0.04	0.02	0.05	0.31
D-1	0.02	0.00	0.58	0.91	0.21	0.24	22.19
D-2	0.03	0.01	0.22	0.95	0.19	0.12	27.00
D-3	0.08	0.01	1.97	0.82	0.39	0.02	21.74
D-4	0.02	0.01	0.71	2.39	0.33	0.06	37.31
E-1	0.01	0.00	0.20	2.56	0.18	0.04	27.50
E-2	0.02	0.01	0.96	1.33	0.46	0.00	25.75
The national standard (GB 16889-2008)	0.3	0.15	4.5	40	0.5	0.25	100

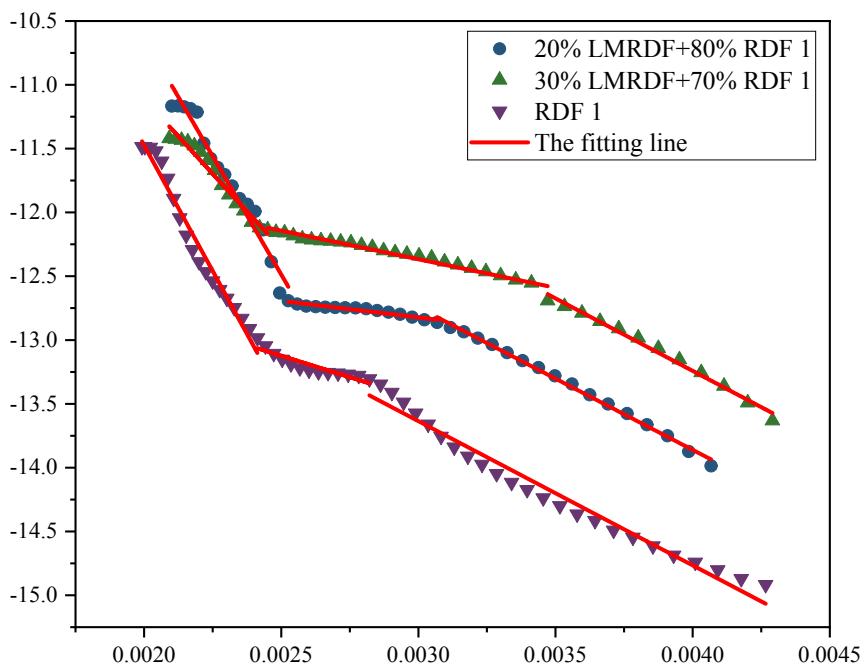


Figure S1. First order fitting curve of thermogravimetric reaction kinetics.

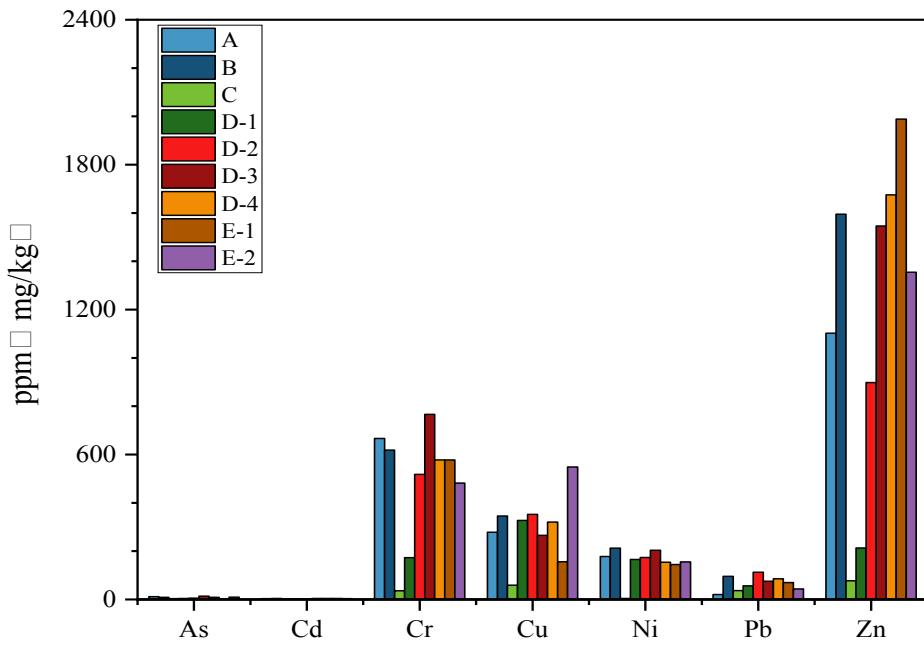


Figure S2. Heavy metal content in the fly ash.