

Tab.S1 Leaching toxicity test of raw PG

Testing items	Cd	Pb	Fe	Mn	Zn	Cu	Ni
Content (mg/L)	0.0035	0.0345	0.84	3.14	0.243	0.0145	0.0191
Testing items	As	Hg	Se	Cr	F	P	pH
Content (mg/L)	0.026	ND	0.0059	ND	23.3	47.7	3.62

Note: ND indicates extremely low content, undetectable or below the lowest detectable limit of the instrument.

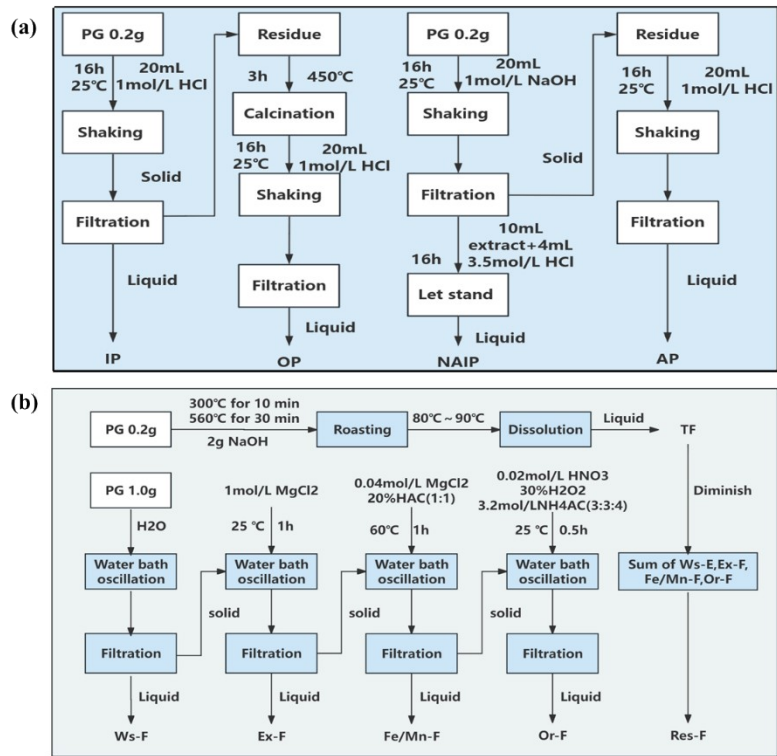


Fig.S1 Sequential extraction procedure for (a) phosphorus speciation analysis and (b) fluorine speciation analysis