

Table S1 The effect of PH<sub>3</sub> content on purification efficiency

Oxygen volume fraction (%)	PH <sub>3</sub> content before purification (mg·m <sup>-3</sup> )	PH <sub>3</sub> content after purification (mg·m <sup>-3</sup> )	Purification efficiency (%)
1.6	350	0	100
1.6	550	0	100
1.6	750	0	100
1.6	900	0	100

Experimental conditions: Adsorbent = flower-shaped CuO, Load capacity=19.35%, Bed height=25.5 cm, T=110 °C and GHSV=750 h<sup>-1</sup>.