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Tin-palladium supported on alumina as a highly active and selective catalyst for hydrogenation of nitrate in actual groundwater polluted with nitrate

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Table S1 Catalytic performance of $\text{Sn}_{0.5}\text{Pd}/\text{Al}_2\text{O}_3$ with different metal loadings for the hydrogenation of NO_3^- .

Loading amount of $\text{Sn}_{0.5}\text{Pd}$ /wt%	NO_3^- -decomposition rate/ $\text{mmol h}^{-1} \text{g}^{-1}$	Selectivity ^a /%	
		NH_4^+	Gas
6.5	8.0	1	99
1.0	1.4	1	99

Reaction conditions: catalyst weight, 10 mg; reactant NO_3^- (from KNO_3), 0.8 mmol dm^{-3} , volume of reaction solution 250 cm^3 ; gas composition, $\text{H}_2/\text{CO}_2 = 1/1$; gas flow rate, $30 \text{ cm}^3 \text{ min}^{-1}$; and reaction temperature, 298 K.

^a Selectivity at around 30% conversion.