Table S1 Apparent rate constants for 4-nitrophenol reduction with $NaBH_4$ (PGM catalysts only)；RT: Room temperature

Catalyst / system	**k(min^{-1})**	**Dose basis**	**Medium and additives**	**Temp**	**Source**
This work - bio-Pd	0.38	4 mol% total PGM vs 4-NP	Water, surfactant-free	RT	This work
This work - bio-PdPt (Pt-enriched)	0.32	4 mol% total PGM vs 4-NP	Water, surfactant-free	RT	This work
This work - bio-PdRh (alloyed)	0.25	4 mol% total PGM vs 4-NP	Water, surfactant-free	RT	This work
Bio-Pd, *Shewanella oneidensis*	0.0142	7.5 μM Pd in reactor	Water	RT	(Tuo et al 2017)
Bio-Pt, *Shewanella oneidensis*	0.0056	7.5 μM Pt in reactor	Water	RT	(Tuo et al 2017)
Bio-PdPt, *Shewanella oneidensis*	0.0292	7.5 μM Pd+Pt in reactor	Water	RT	(Tuo et al 2017)
Bio-Pd, *Shewanella oneidensis* (AQDS)	0.0256	7.5 μM Pd in reactor	Water	RT	(Tuo et al 2017)
Bio-Pt, *Shewanella oneidensis* (AQDS)	0.0065	7.5 μM Pt in reactor	Water	RT	(Tuo et al 2017)
Bio-PdPt, *Shewanella oneidensis* (AQDS)	0.0316	7.5 μM Pd+Pt in reactor	Water	RT	(Tuo et al 2017)

Pd NPs, PVA-stabilised	0.514	2.91 mol% Pd vs 4-NP	Water, PVA stabiliser	298 K	(Chatterjee and Bhattacharya, 2021)
Pt NPs, rhodizonate-stabilised	0.1088	-	Water, sodium rhodizonate	RT	(Islam et al., 2018)
Pd NPs, rhodizonate-stabilised	0.0165	-	Water, sodium rhodizonate	RT	(Islam et al., 2019)

Reference:

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