

**Nickel-supported PdM (M=Au, Ag) nanodendrites as formate oxidation
(electro)catalytic anodes for direct fuel cell and hydrogen generation in room
temperature**

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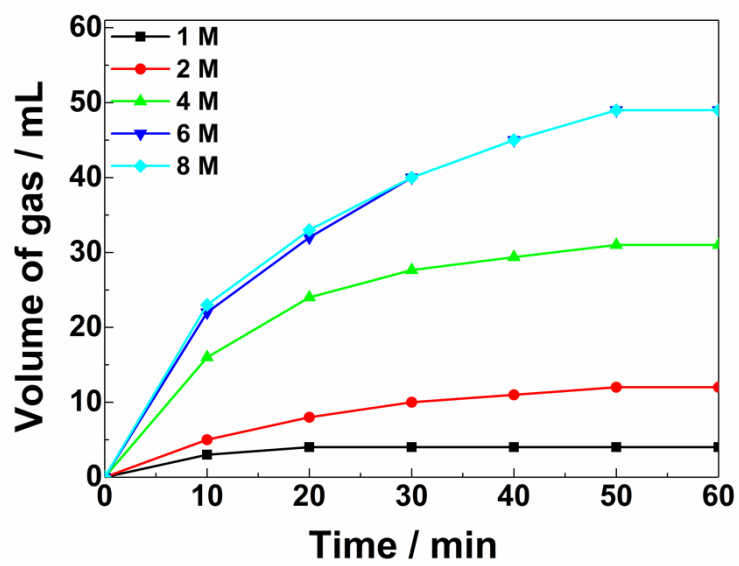


Figure S1. Variation volume of hydrogen gas for catalyzed decomposition of formate over PdAu/NiNF catalyst under different potassium formate concentration

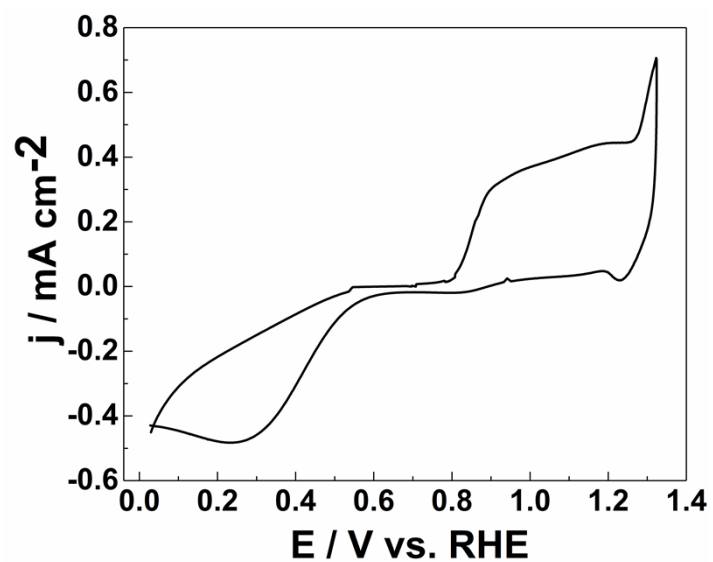


Figure S2. CV curve of Ni Foam recorded in N_2 -saturated 1 M KOH and 1 M HCOOK with a sweep rate of 50 mV s^{-1} .

Table S1. A literature survey of the activity of Pd-based FOR catalysts in alkaline media

Catalyst	Electrolyte	Scan rate (mV·s ⁻¹)	Specific Activity (mA·cm ⁻²)	Reference
PdAu/NiNF	1 M KOH + 1 M HCOOK	50	10.37	This work
PdAg/NiNF	1 M KOH + 1 M HCOOK	50	7.11	This work
Pd ₆ Ag ₃ Rh ₁	1 M KOH + 1 M HCOOK	50	4.21	[1]
Pd/CeO ₂	1 M KOH + 1 M HCOOK	20	9.54	[2]
PdMn	1 M KOH + 0.5 M HCOOK	50	1.55	[3]
PdB/C	1 M KOH + 0.5 M HCOOK	50	7.41	[4]
PdH-ND	1 M KOH + 0.5 M HCOOK	50	5.18	[5]
PdAgCu	1 M KOH + 1 M HCOOK	50	10.1	[6]
PdRh/C	1 M KOH + 1 M HCOOK	50	8.1	[7]
L-Pd aerogel	1 M KOH + 1 M HCOOK	50	3.97	[8]
Pd/C-H	1 M NaOH + 1 M HCOONa	50	7.4	[9]

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