Electronic Supplementary Information (ESI)

Low content Ru-incorporated Pd nanowires for bifunctional electrocatalysis

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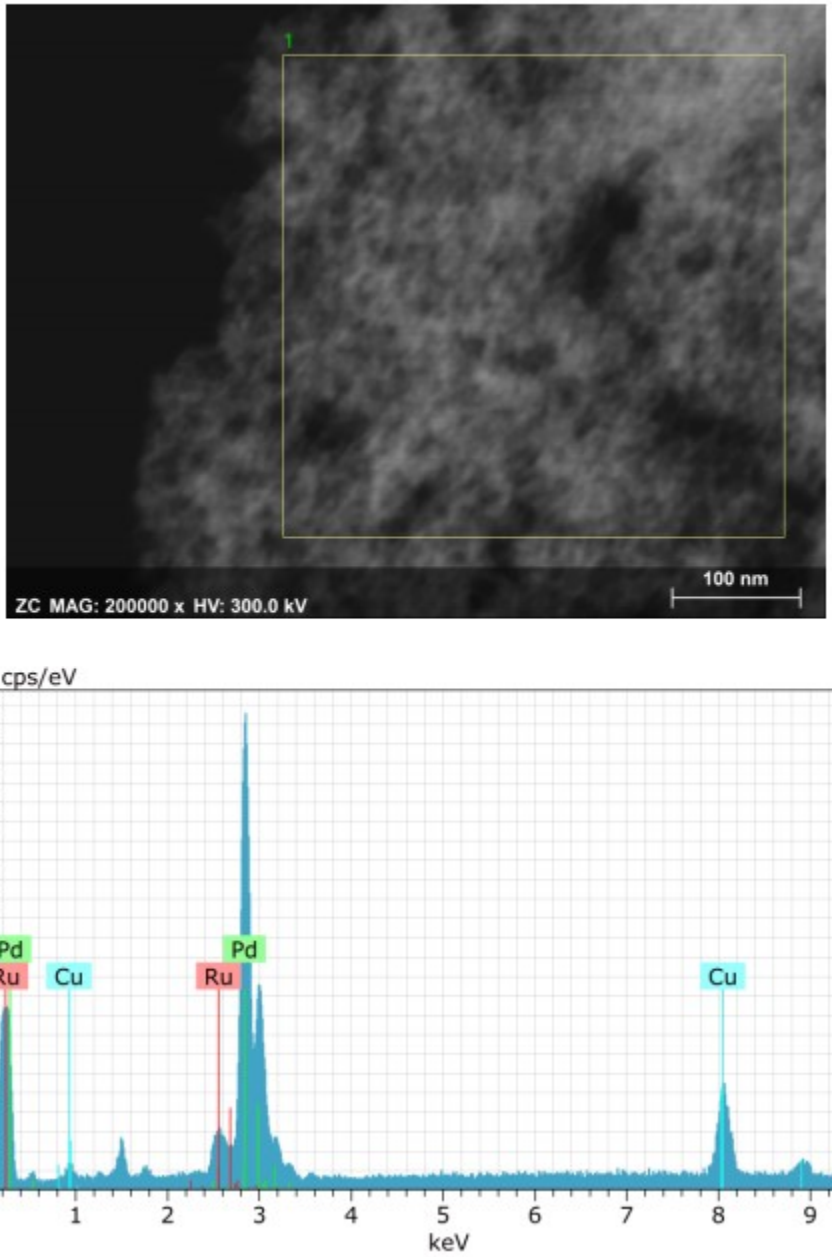

Figure S1. TEM/EDS analysis of the nRuPd/C sample.

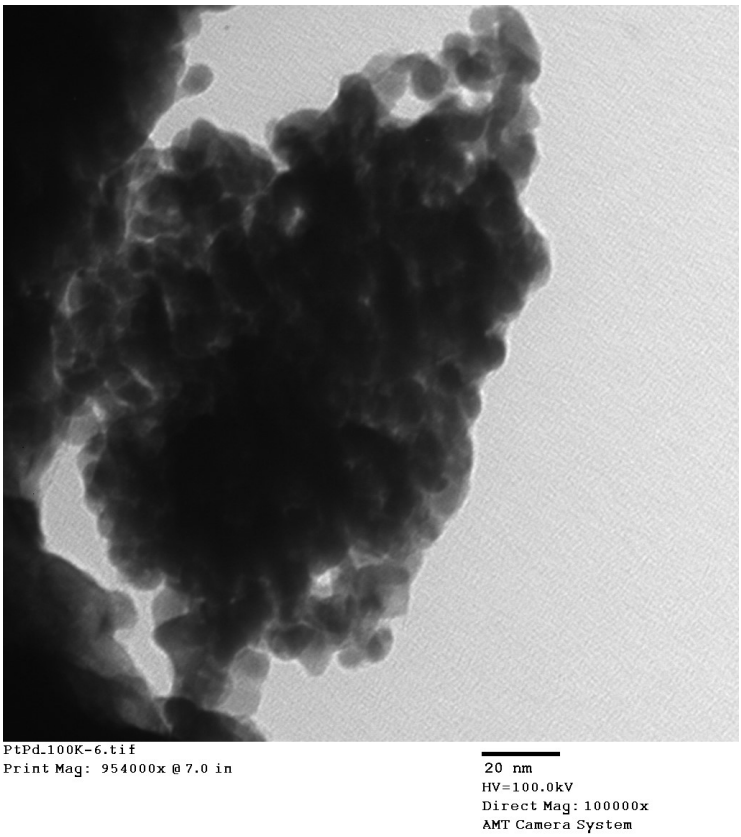

Figure S2. TEM images of the nPtPd nanowires.

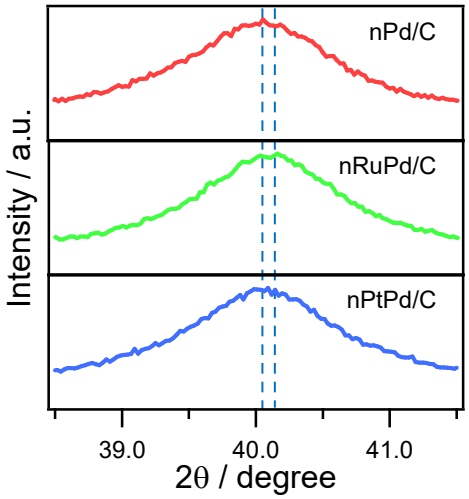

Figure S3. XRD patterns of the (111) reflection in nPd/C, nRuPd/C, and nPtPd/C.

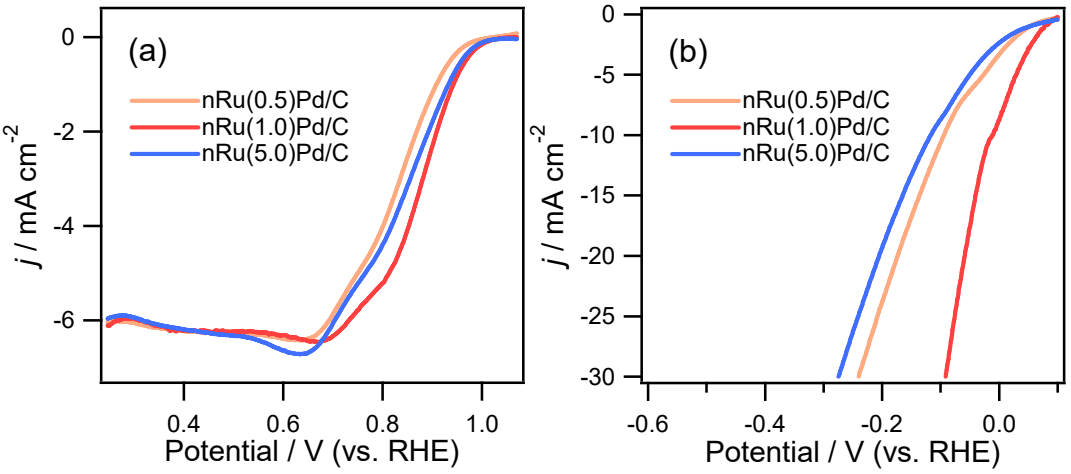

Figure S4. RDE polarization curves of a series of nRuPd/C for (a) ORR and (b) HER at various Ru concentrations (0.5, 1.0, 5.0 mM).

Table S1. Comparison of the ORR/HER performance of Ru-based catalysts in alkaline medium.

Catalysts	ORR (0.1 M KOH)		HER (1.0 M KOH)		Refs
	$E_{1/2}$ [V]	E_{onset} [V]	η [mV, at -10 mA cm^{-2}]	Tafel slope [mV dec^{-1}]	
CoRu-O/A@HNC-2	0.821	0.937	85.0	72.5	S1
RuNi/CQDs	-	-	13.0	40.0	S2
Ru_2Ni_2 SNs/C	-	-	40.0	23.0	S3
Ru@NGT	0.830	0.970	60.0	81.0	S4
Ru_2P/RGO-20			13.0	56.0	S5
Ru-NC-700	-	-	12.0	14.0	S6
Ni@Ni_2P-Ru	-	-	31.0	41.0	S7
nRuPd/C	0.936	1.038	11.7	50.1	This work

References

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