

Electronic Supplementary Information (ESI)
for
Nanoparticle Catalyst Preparation Using Pulsed Arc Plasma Deposition

Satoshi Hinokuma, Satoshi Misumi, Hiroshi Yoshida and Masato Machida*

Table S1 The fitting parameters obtained from Pd K-edge EXAFS analysis of Pd-Fe/Al₂O₃
prepared via synchronous (syn) and asynchronous (asyn) dual mode arc-plasma pulsing

Table S1 The fitting parameters obtained from Pd K-edge EXAFS analysis of Pd-Fe/Al₂O₃ prepared via synchronous (syn) and asynchronous (asyn) dual mode arc-plasma pulsing

	shell	CN ^a (±0.2)	r/Å ^b (±0.03)	σ ² /10 ⁻² Å ^{2c} (±0.05)	R/%
syn (fresh)	Pd–O	2.7	2.01	0.45	2.0
	Pd–Fe	0.5	2.70	0.65	
	Pd–Pd	0.8	2.73	0.59	
asyn (fresh)	Pd–O	2.7	2.01	0.27	2.5
	Pd–Pd	0.6	2.71	0.59	
PdO	Pd–O	4.0	2.02	0.27	0.5
	Pd–O–Pd	4.0	3.05	0.52	
	Pd–O–Pd	4.0	8.0	3.43	0.55
Pd foil	Pd–Pd	12.0	2.74	0.59	0.1

Interval of k-space to r-space of FT is 3.0-16.0 Å⁻¹.

^aCoordination number. ^bInteratomic distance. ^cDebye–Waller factor.