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**Supporting information for article:**

**A Dispenser-reactor Apparatus Applied for In Situ XAS Monitoring  
of Pt Nanoparticle Formation**

**Jocenir Boita, Marcus Vinicius Castegnaro, Maria do Carmo Martins Alves and  
Jonder Morais**

## Supporting information

**Table S1** Results obtained from the XRD analysis.

hkl	$2\theta^a(^\circ)$	$2\theta^b(^\circ)$	$d_{hkl}^c(\text{\AA})$	$d_{hkl}^d(\text{\AA})$	FWHM <sup>e</sup> ( $^\circ$ )	$D^f(\text{nm})$
1 1 1	40.031	39.942	2.250	2.258	0.892	9.36
2 0 0	46.560	46.458	1.949	1.955	1.048	8.15
2 2 0	67.964	67.784	1.378	1.383	1.628	5.82
3 1 1	81.901	81.661	1.175	1.179	2.091	4.97
2 2 2	86.501	86.167	1.125	1.129	2.261	4.77

Mean size by XRD:  $6.6 \pm 2.1$  nm

Mean size by TEM:  $4.9 \pm 1.1$  nm

a Peak positions obtained from the Rietveld refinement.

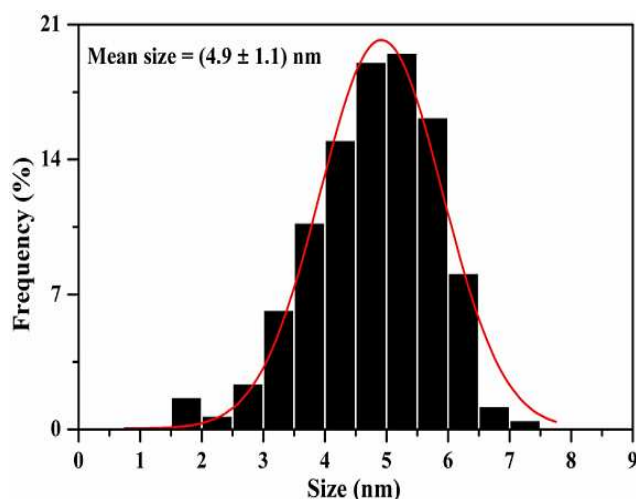
b Peak positions from ICSD number 64917.

c Interplanar distances from the Rietveld refinement.

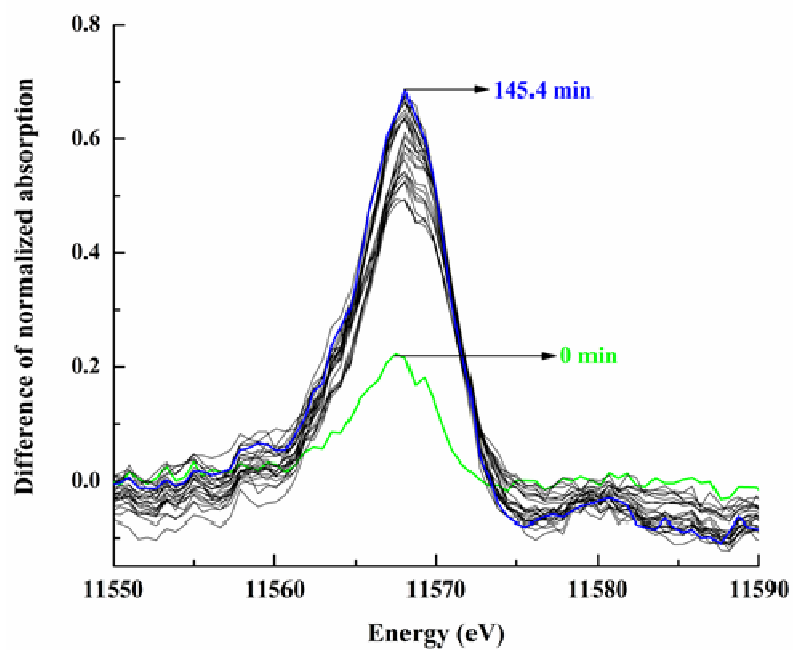
d Interplanar distances from ICSD number 64917.

e FWHM obtained from the Rietveld refinement.

f Average size of Pt crystallites calculated via Scherrer's equation using the FWHM and peak position obtained from data adjusting.



**Figure S1** Histogram of the diameter distribution obtained from the TEM image in Figure 6 (a).



**Figure S2** Difference between the XANES spectra that best represent the changes during the formation of NPs displayed in Figure 4 (a) with respect to the spectrum  $\text{K}_2\text{PtCl}_6 + \text{SC}$ .