Supporting information to

Support-induced effects of LaFeO$_3$ perovskite on the catalytic performances of supported Pt catalysts in DeNO$_x$ applications

J.P. Dacquin, C. Lancelot, C. Dujardin, C. Cordier-Robert ‡
P. Granger*

Université de Lille Nord de France, Unité de Catalyse et de Chimie du Solide, UMR CNRS 8181, Bâtiment C3, 59650 – Villeneuve d’Ascq Cedex, France

‡ Université de Lille Nord de France, Unité Matériaux et Transformations UMR CNRS 8217 – groupe métallurgie Bâtiment C6, 59650 – Villeneuve d’Ascq Cedex, France
Figure S1. $^{57}$Fe Mössbauer spectra recorded at room temperature on calcined LaFeO$_3$ (a) and supported Pt/LaFeO$_3$ powder after exposure to reductive atmosphere in pure H$_2$ at 500°C (Pt/LaFe(R500)) (b) (dark lines: Fe$^{3+}$ environments and gray lines: Fe$^{II}$ environments). The difference observed on both spectra Pt/LaFeO$_3$ has been ascribed to more extensive reduction of Fe$^{3+}$ correlated to a relative increase of the abundance of Fe$^{II}$ state from 3 to 14%. Let us notice that the pure iron environment (H = 33.3T) was not observed in these powders.