

Supplementary Information

**Regeneration of Atomic Ag Sites over Commercial  $\gamma$ -Aluminas by  
Oxidative Dispersion of Ag Metal Particles**

Hiroe Kubota,<sup>a</sup> Shinya Mine,<sup>a</sup> Takashi Toyao,<sup>a</sup> and Ken-ichi Shimizu<sup>\*a</sup>

<sup>a</sup>Institute for Catalysis, Hokkaido University, N-21, W-10, Sapporo 001-0021, Japan

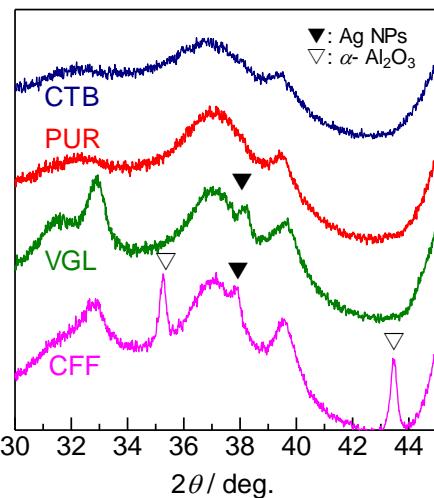


Figure S1 XRD patterns of the fresh 4 samples (Ag(3)/Al<sub>2</sub>O<sub>3</sub>) after calcination at 600 °C

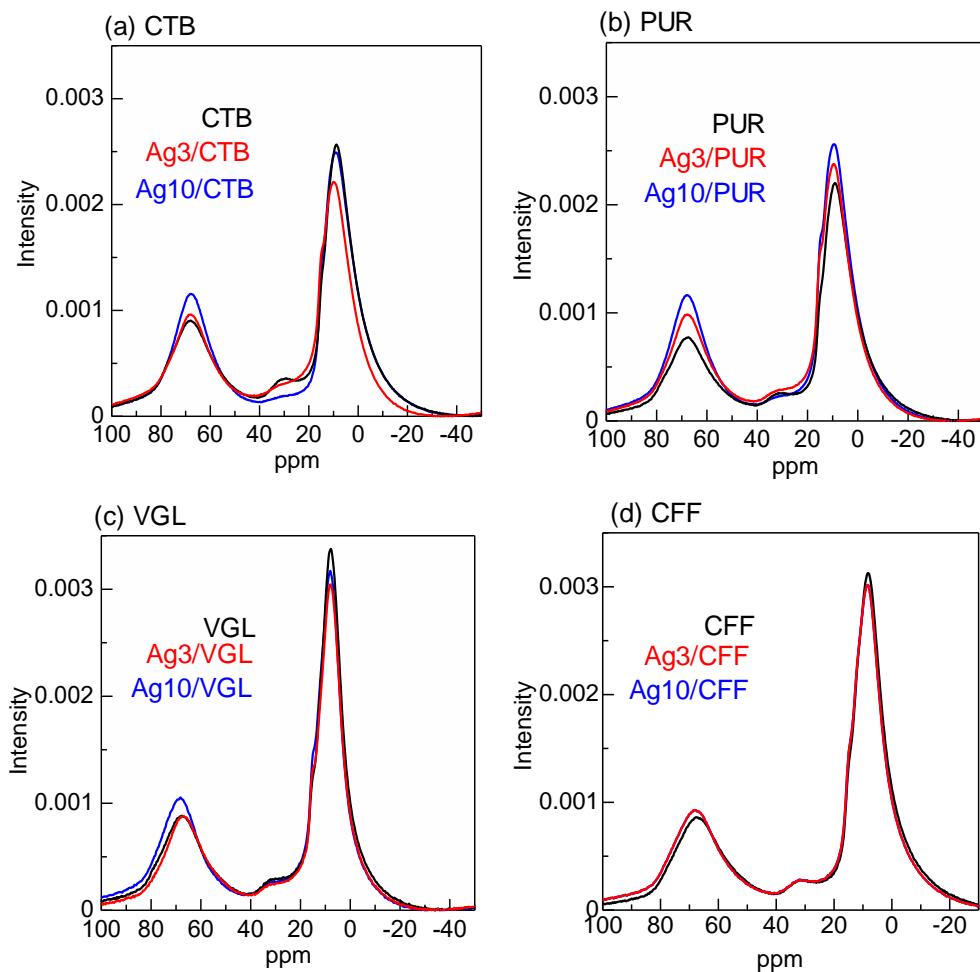


Figure S2 <sup>27</sup>Al NMR spectra of Ag(0, 3, 10 wt%)-loaded Al<sub>2</sub>O<sub>3</sub>: (a) CTB, (b) PUR, (c) VGL and (d) CFF. The samples were dehydrated under N<sub>2</sub> at 500 °C before the measurements.

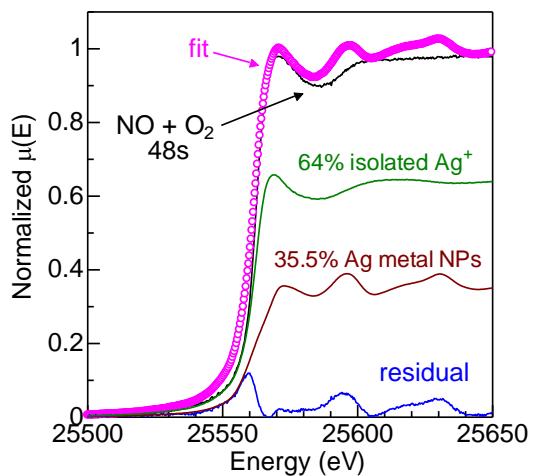


Figure S3 Example of LCF analysis.

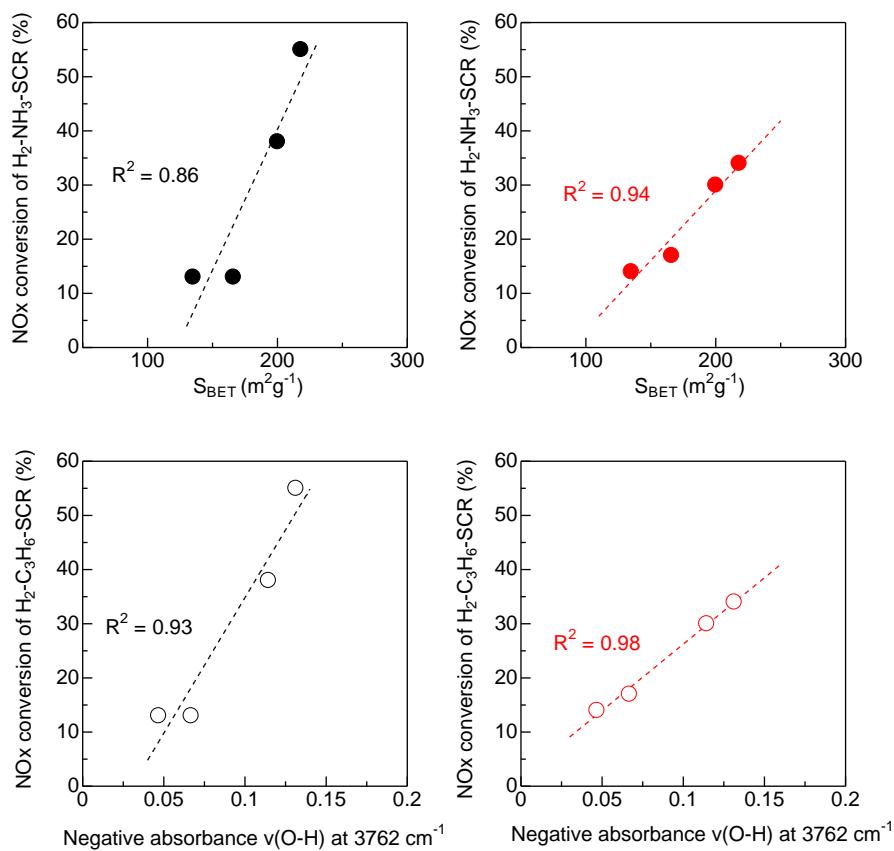


Figure S4 NOx conversions versus surface areas and IR intensity of negative peak due to HO- $\mu^1$ -Al<sub>V1</sub> sites (Figure 3a) for the four Ag/Al<sub>2</sub>O<sub>3</sub> catalysts.