Figure 1. Formation of CO and CO$_2$ during temperature programmed extinction experiments with C$_2$H$_2$ (circle), C$_2$H$_4$ (square) and C$_2$H$_6$ (triangle) over Ag/Al$_2$O$_3$ catalyst with (a) 6 wt% and (b) 2 wt%
nominal silver content. Inlet gas composition: 600 ppm C₂ hydrocarbon, 10% O₂, Ar balanced. GHSV: 32,000 h⁻¹.
Figure 2. Formation of CO, CO₂ and reduction of NOₓ during temperature programmed extinction experiments with C₂H₂ (circle), C₂H₄ (square) and C₂H₆ (triangle) over Ag/Al₂O₃ catalyst with (a) 6 wt% and (b) 2 wt% nominal silver content. Inlet gas composition: 200 ppm NO, 600 ppm C₂ hydrocarbon, 10% O₂, Ar balanced. GHSV: 32 000 h⁻¹

Figure 3. Evolution of surface species during step response experiments with C₂H₄ recorded in DRIFTS at 450°C over Ag/Al₂O₃ catalyst with (a) 6 wt% and (b) 2 wt% nominal silver content, after 1 min (red), 2 min (pink), 3 min (purple), 4 min (blue), 5 min (light blue), 10 min (green), 20 min (light green) and 30 min (black) gas exposure. Inlet gas composition: step 1: C₂H₄+O₂; step 2: O₂; step 3: C₂H₄+O₂; step 4: C₂H₄+NO+O₂; step 5: NO+O₂. Contents: 600 ppm NO, 600 ppm C₂H₄, 10% O₂, Ar balanced.
Figure 4. Evolution of surface species during step response experiments with C\textsubscript{2}H\textsubscript{2} recorded in DRIFTS at 450°C over Ag/Al\textsubscript{2}O\textsubscript{3} catalyst with (a) 6 wt% and (b) 2 wt% nominal silver content, after 1 min (red), 2 min (pink), 3 min (purple), 4 min (blue), 5 min (light blue), 10 min (green), 20 min (light green) and 30 min (black) gas exposure. Inlet gas composition: step 1: C\textsubscript{2}H\textsubscript{2}+O\textsubscript{2}; step 2: O\textsubscript{2}; step 3: C\textsubscript{2}H\textsubscript{2}+O\textsubscript{2}; step 4: C\textsubscript{2}H\textsubscript{2}+NO+O\textsubscript{2}; step 5: NO+O\textsubscript{2}. Contents: 600 ppm NO, 600 ppm C\textsubscript{2}H\textsubscript{2}, 10% O\textsubscript{2}, Ar balanced.
Figure 5. Evolution of surface species during step response experiments with $C_2H_2$ recorded in DRIFTS at 450°C over Ag/Al$_2$O$_3$ catalyst with (a) 6 wt% and (b) 2 wt% nominal silver content, after 1 min (red), 2 min (pink), 3 min (purple), 4 min (blue), 5 min (light blue), 10 min (green), 20 min (light green) and 30 min (black) gas exposure. Inlet gas composition: step 4: $C_2H_2$+NO+O$_2$ and step 5: NO+O$_2$. Contents: 600 ppm NO, 600 ppm $C_2H_2$, 10% O$_2$, Ar balanced. Please note that the scale of the y-axes is about 1/10$^{th}$ compared to the y-axes scales in Figure 3 and 4.