Supplementary Information

Catalytic combustion of ventilation air methane (VAM) – long term catalyst stability in the presence of water vapour and mine dust

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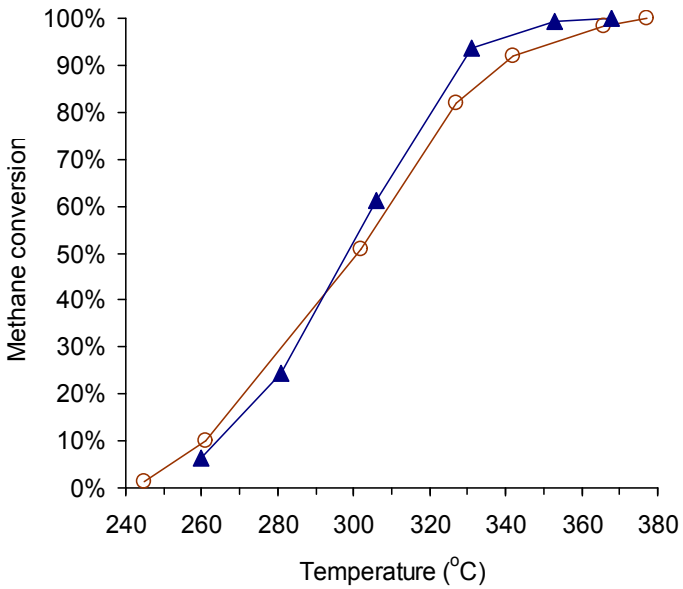

Fig. S1 Methane conversion as a function of reaction temperature of methane oxidation over 1.0 wt% Pd/Al_2O_3 and 1.2 wt% Pd/Al_2O_3 catalyst. Feed: 7000 ppm CH_4 balance air at GHSV = 100 000 h^{-1}. ○ = 1.0 wt% Pd/Al_2O_3 catalyst; ▲ = 1.2 wt% Pd/Al_2O_3 catalyst.

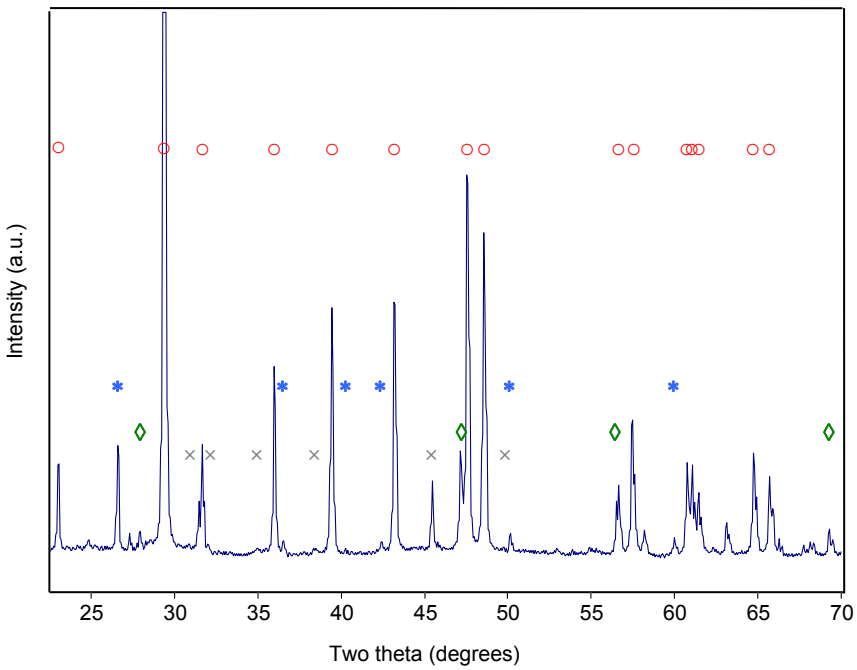

Fig. S1 X-ray diffraction patterns of VAM dust. Crystalline phase: ○ = $CaCO_3$, ✱ = SiO_2, ◊ = Si, × = Fe_3O_4.