

## Supplementary Information

# The stability of Pd/TS-1 and Pd/Silicalite-1 for catalytic oxidation of methane - understanding the role of titanium

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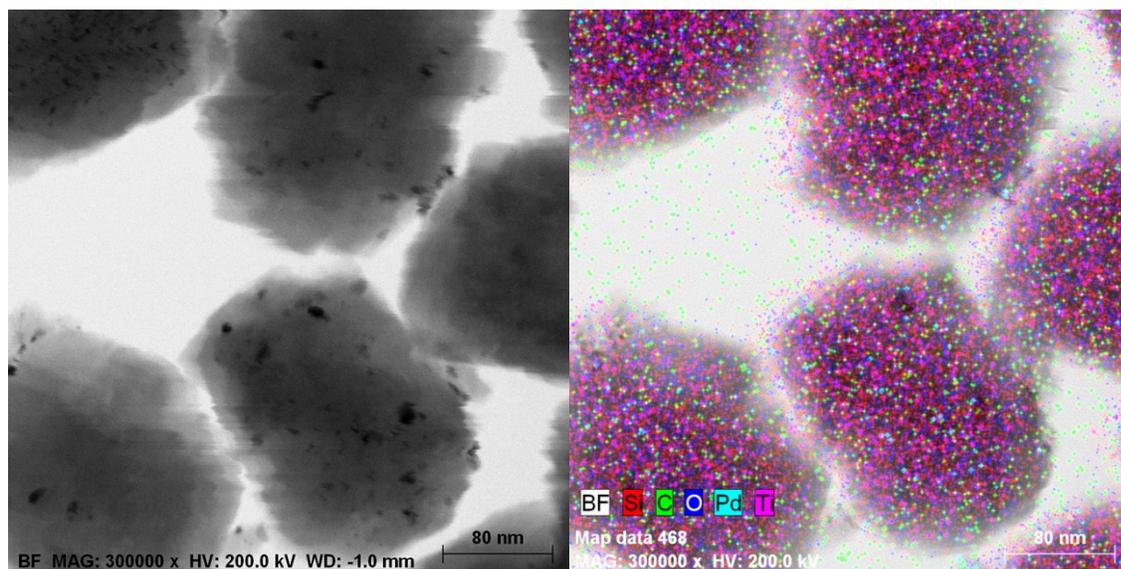
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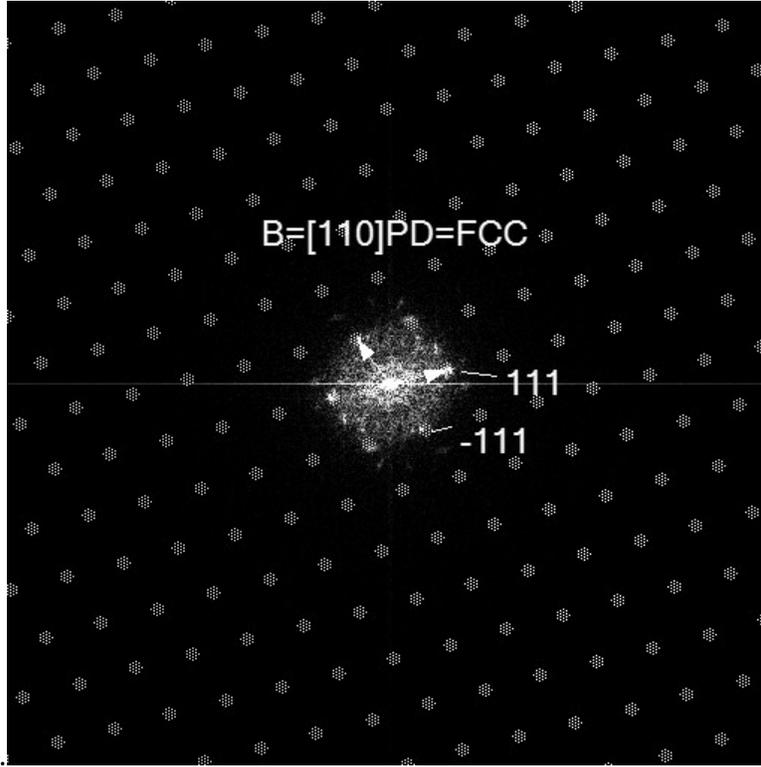
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**Fig. S1.** TEM image and elemental mapping by EDS analysis of Pd/TS-1



**Fig. S2.** The Indexed FFT pattern of PdO (111) facet plane on Pd/TS-1