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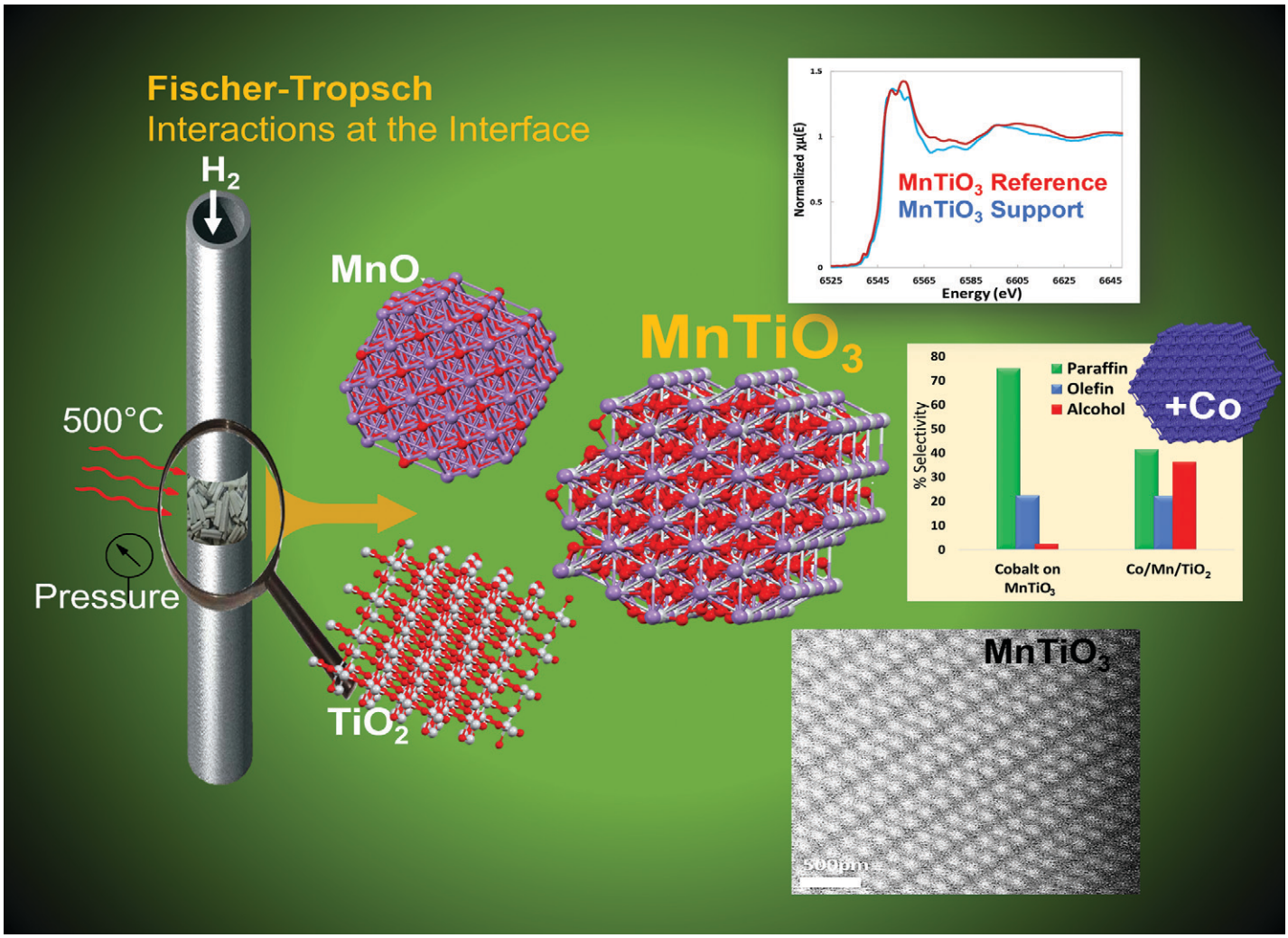

Showcasing research from BP Applied Sciences, Hull, UK.

Controlling cobalt Fischer–Tropsch stability and selectivity through manganese titanate formation

Manganese titanate is shown to be an effective support with a ABO_3 perovskite structure for Fischer-Tropsch, and shows substantial differences in catalytic performance over the conventional Mn impregnated TiO_2 support with the same composition. Cobalt supported on the $MnTiO_3$ shows significantly higher C_{5+} selectivity and CO conversion than the equivalent conventional $Co/Mn/TiO_2$ catalyst. Interestingly, after the $MnTiO_3$ support is re-oxidised to TiO_2 and MnO_2, it subsequently reduces back to $MnTiO_3$ at low temperature, suggesting a structural memory for the $MnTiO_3$ phase after oxidation.

As featured in:

See James Paterson *et al.*, *Catal. Sci. Technol.*, 2023, **13**, 3818.

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