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### Solid 'oxygen reservoirs' for selective hydrogen oxidation

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## **List of abbreviations**

BET	Brunauer Emmett Teller
DSC	Differential scanning calorimetry
EPR	Electron paramagnetic resonance
EXAFS	Extended X-ray absorption fine structure
FCC	Fluid catalytic cracking
GA	Genetic algorithm
GC	Gas chromatography
GHSV	Gas hourly space velocity
ICP	Inductive coupled plasma
LEIS	Low-energy ion scattering spectroscopy
MS	Mass spectrometry
MTBE	Methyl tertiary butyl ether
ODH	Oxidative dehydrogenation
POM	Partial oxidation of methane
PP	Polypropene
PROX	Preferential oxidation
SHC	Selective hydrogen combustion
SMART	Styrene monomer advanced reheat technology
SMSI	Strong metal-support interaction
SOR	Solid oxygen reservoir
STAR	Steam active reforming
TCD	Thermal conductivity detector
TEM	Transmission electron microscopy
TGA	Thermo gravimetric analysis
TPR	Temperature programmed reduction
TWC	Three-way catalyst, or three-way converter
WHSV	Weight hourly space velocity
XPS	X-ray photoelectron spectroscopy
XRD	X-ray diffraction