## Supporting Information for

## The microwave cavity perturbation technique for contact-free and in-situ electrical conductivity measurements in catalysis and materials science

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**Fig. 1** Observed (blue line) and calculated (for different identified phases, cf. legend; red line: sum of calculated patterns with adjusted background) powder diffraction pattern after final Rietveld refinement (anisotropic fit using 6th order spherical harmonics) of the VNbPO catalyst used in the MCPT measurements. Calculated peak positions are indicated as tick marks. Additionally, the difference between observed and calculated diffractograms is given (grey line). The XRD pattern was recorded at room temperature on a STOE Stadi-P transmission diffractometer using CuK $\alpha$  radiation.