

## Electrochemical Impedance Spectroscopy of PEM Fuel Cells at Low Hydrogen Partial Pressures. Efficient Cell Tests for Mass Production.

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### Supporting Information

Polarization curves for all partial pressures are shown in Fig. S1. The performance of the cell decreases with decreasing hydrogen partial pressure as apparent from decreasing voltage values in the polarization curves.

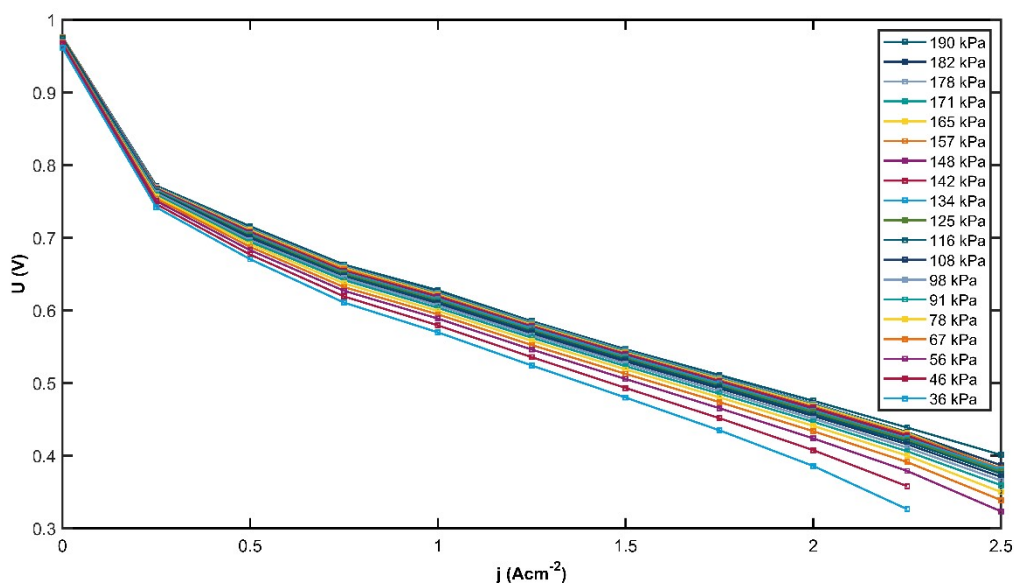


Fig.S1 Polarization curves for hydrogen partial pressures between 36 kPa and 190 kPa.

In Fig. S2 the Nyquist plot of impedance spectra for all hydrogen partial pressures is displayed. The corresponding relative residuals of the fits with the ECM are shown in Fig. S3.

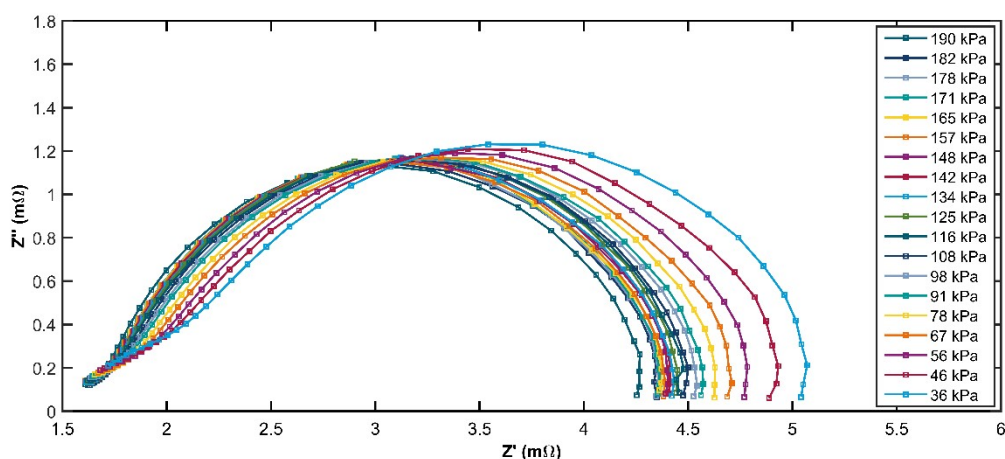
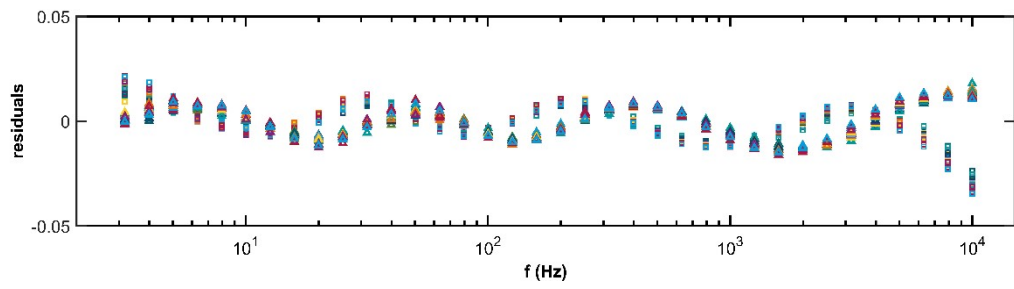


Fig.S2 Nyquist plot of impedance spectra recorded for hydrogen partial pressures between 36 kPa and 190 kPa.



**Fig.S3** Relative residuals of the ECM fits of the EIS for hydrogen partial pressures between 36 kPa and 190 kPa.