Supporting Information

Transport Effects in the Electrooxidation of Methanol Studied on Nanostructured Pt/Glassy Carbon Electrodes

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Table S1 CO_2 current efficiencies on polycrystalline Pt bulk electrodes (geom. surface area 0.283 cm²) after one minute after the potential was stepped from E_{int} to E_{fin}. *c* concentration of CH_3OH in 0.5 M H_2SO_4; *v* electrolyte flow rate.

E_{int} [V]	E_{fin} [V]	c [mol L^{-1}]	*v* [µL s^{-1}]	A_{CO_2} [%]
0.05	0.65	0.001	10	55*
0.05	0.75	0.01	1.1	49*
0.05	0.60	0.1	1.9	18*
0.05	0.60	0.1	8.3	16*
0.06	0.66	0.1	1	32
0.06	0.66	0.1	10	30
0.06	0.76	0.1	1	35
0.06	0.76	0.1	10	32

* These values are taken from Wang et al., *J. Appl. Electrochem*. **2001,** *31,* 759.

Figure S1 Continuous potentiostatic electrooxidation of methanol in 0.1 M CH_3OH containing 0.5 M H_2SO_4 at 10 µL s^{-1} on *pc Pt* (black squares) and on HCL-prepared *HCL-17* (red circles) and *HCL-04* (blue triangles) electrodes. Top panel: Faradaic currents; bottom panel: mass spectrometric currents at m/z = 60 for detection of methylformate. The potential was stepped from 0.06 V (t_{init} = 30 s) to 0.76 V (t_{fin} = 300 s).

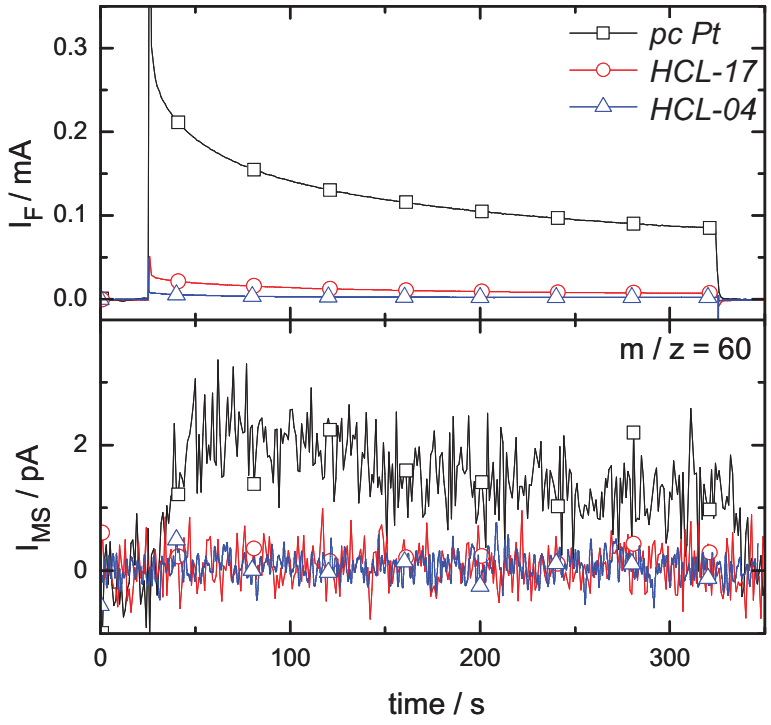

Figure S2 CO_2 current efficiency during continuous potentiodynamic electrooxidation of methanol in 0.1 M CH_3OH containing 0.5 M H_2SO_4 on (a) *pc Pt* (black squares) and HCL-prepared electrodes, namely *HCL-17* (red circles) and *HCL-04* (blue triangles) at 10 μL s^{-1} electrolyte flow rate; (b) on a nanostructured *HCL-17* electrode at different flow rates (1 μL s^{-1} – blue, triangles; 10 μL s^{-1} – red, circles; 30 μL s^{-1} – black, squares). Positive-going scan – filled symbols, negative-going scan – blank symbols.