Supplementary material (ESI) for Journal of Materials Chemistry

Supplementary Material:

A versatile approach to processing of high active area pillar coral- and sponge-like Pt-nanostructures. Application to electrocatalysis

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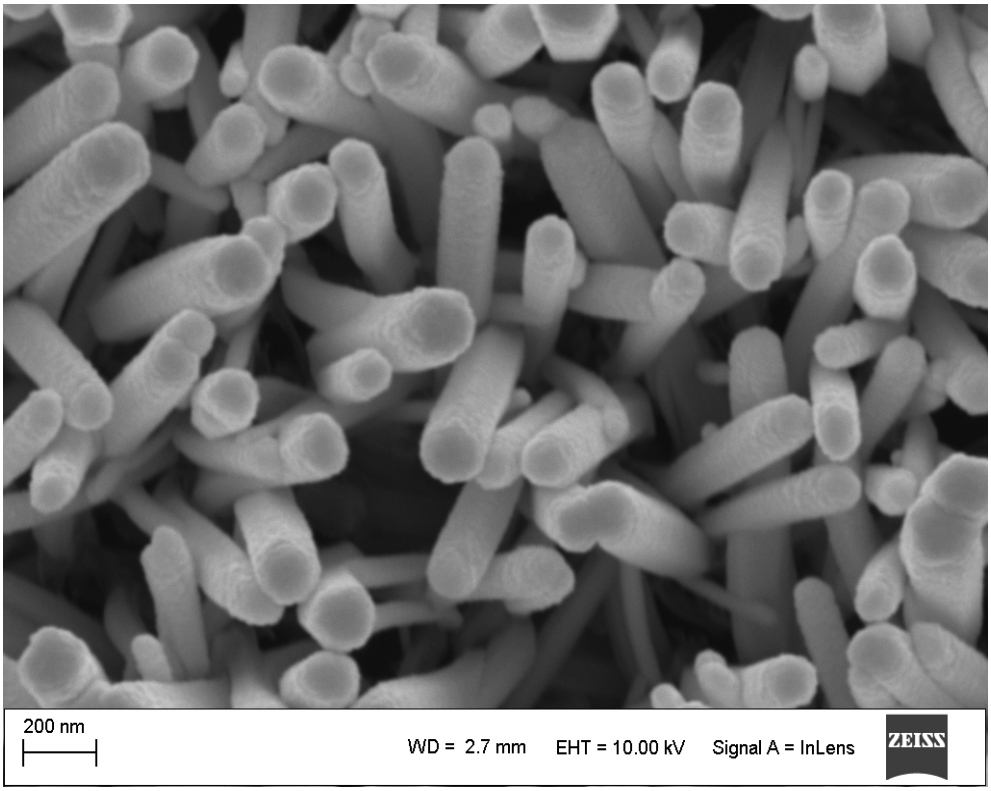

Fig. 1s: SEM image of Pt-NRs array obtained after sputtering of Pt on ZnO-NRs and subsequent dissolution of ZnO. The wall thickness is approximately 24nm

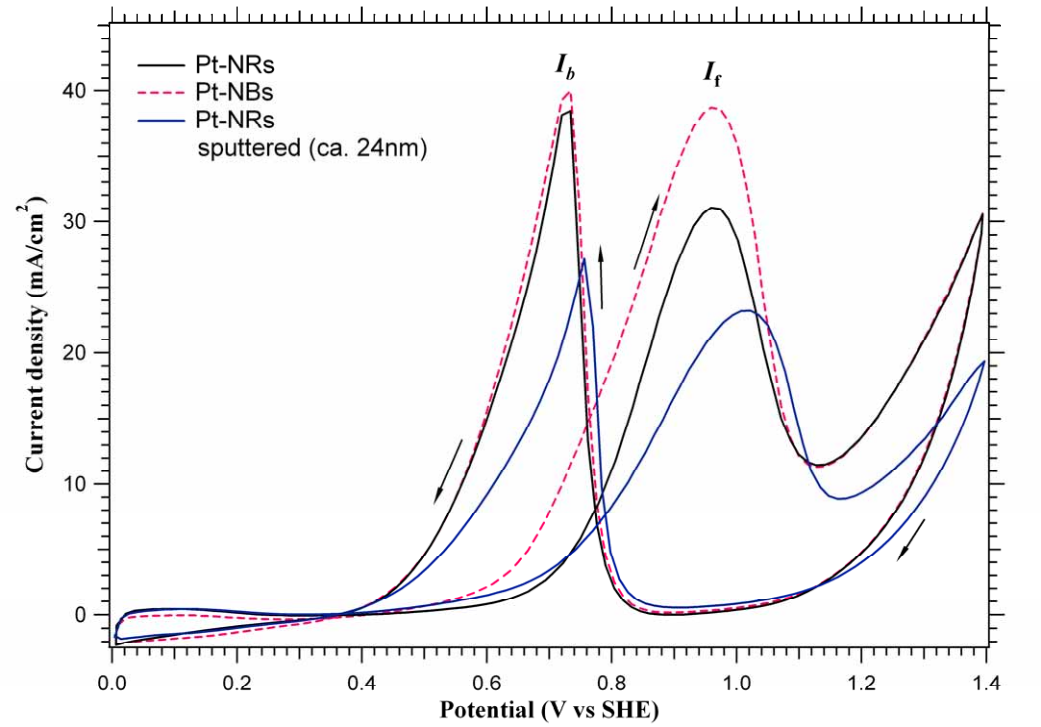

Fig. 2s: Cyclic voltammograms of Pt-NSs in 0.5 M H_2SO_4 + 0.5 M CH_3OH, at a scan rate of 50 mV/s. Red and black curves are for electrochemically processed Pt-NSs, blue is for Pt sputtered on ZnO-NRs (followed by dissolution of ZnO). In the forward scan, the anodic peak maximum associated with methanol oxidation was achieved at E = 0.959 V for electrochemically deposited Pt-NSs, and at E = 1,02 V for sputtered Pt. The current density of the forward anodic peak is lower for the NSs obtained using sputtering.