

Supplementary Materials

Characterization of dark-colored nanoporous anodic films on zinc

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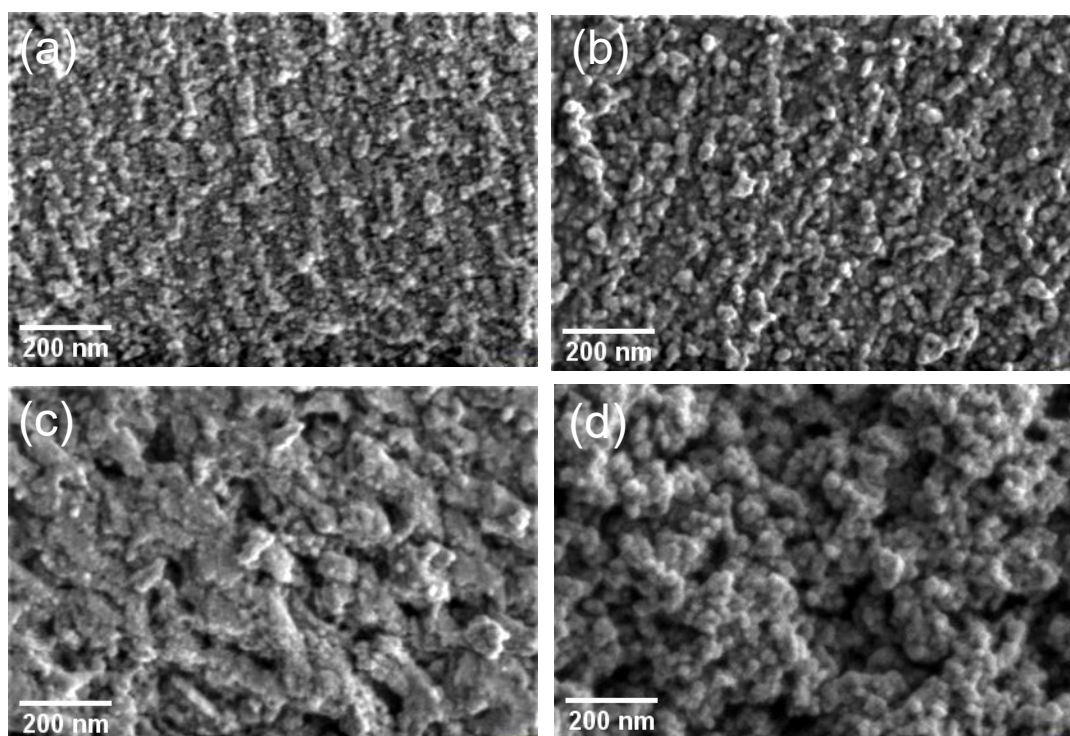


Figure S1. Scanning electron micrographs of surfaces of the anodic films formed on zinc at (a) 5 V for (a) 30 s, (b) 60 s, (c) 300 s and (d) 1800 s in 0.1 mol dm⁻³ KOH electrolyte.

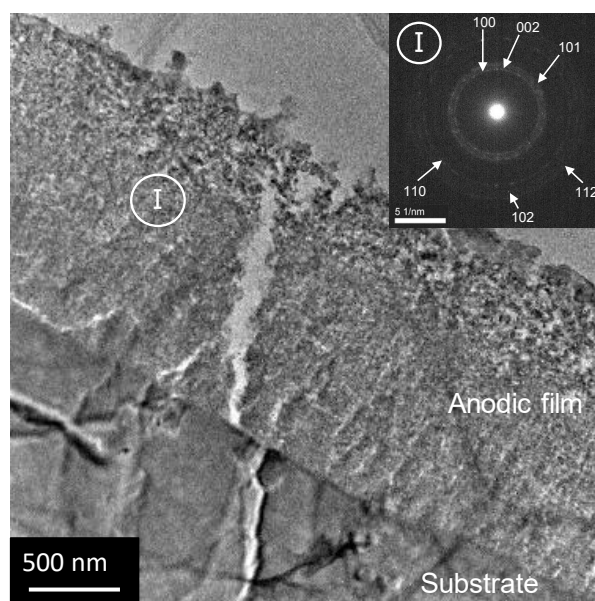


Figure S2. Transmission electron micrograph of an ultramicrotomed section of zinc anodized at 15 V in 0.1 mol dm⁻³ KOH electrolyte for 300 s. The inset shows a selected area electron diffraction pattern of the region I.

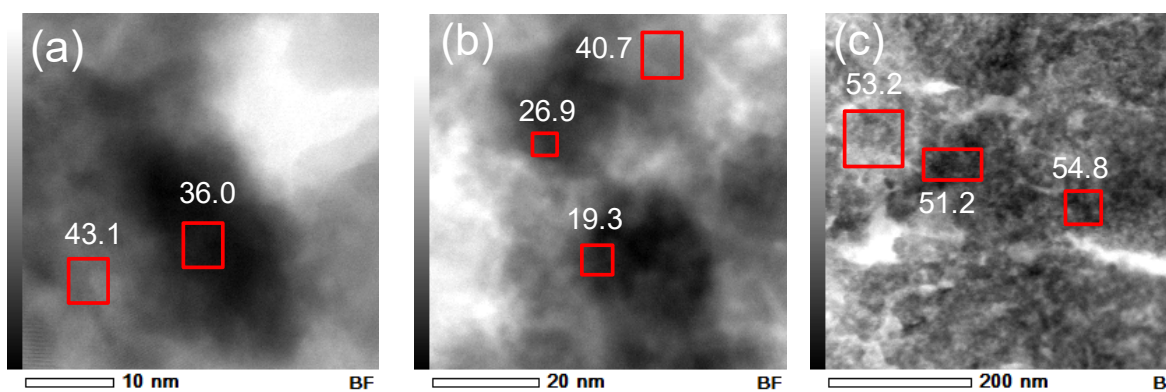


Figure S3. Scanning transmission electron micrographs of ultramicrotomed sections of zinc anodized at (a,b) 5 V for 1800 s and (c) 15 V for 300 s in 0.1 mol dm⁻³ KOH electrolyte: (a) the outer layer and (b) inner layer of the anodic film. The value shown in each square region is the oxygen content (at%).