

**Figure S1.** X-ray diffraction patterns of the films of Zn-Mn deposited chronoamperometrically at -1.53 V, with qd = 10.20 cm-2, in following baths (2ɵ scanned at 2° min-1): **(a)** bath E; **(b)** bath F; **(c)** bath G; **(d)** bath H.