Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Efficient water oxidation with amorphous transition metal boride catalysts synthesized by chemical reduction of metal nitrate salts at room temperature

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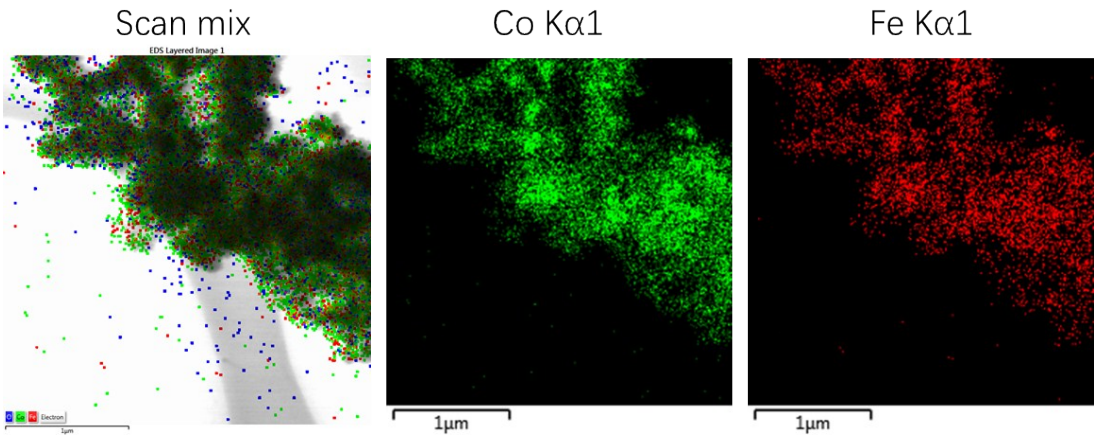

Figure S1. Energy dispersive x-ray spectroscopy of the sample Co3Fe1-AMOR.

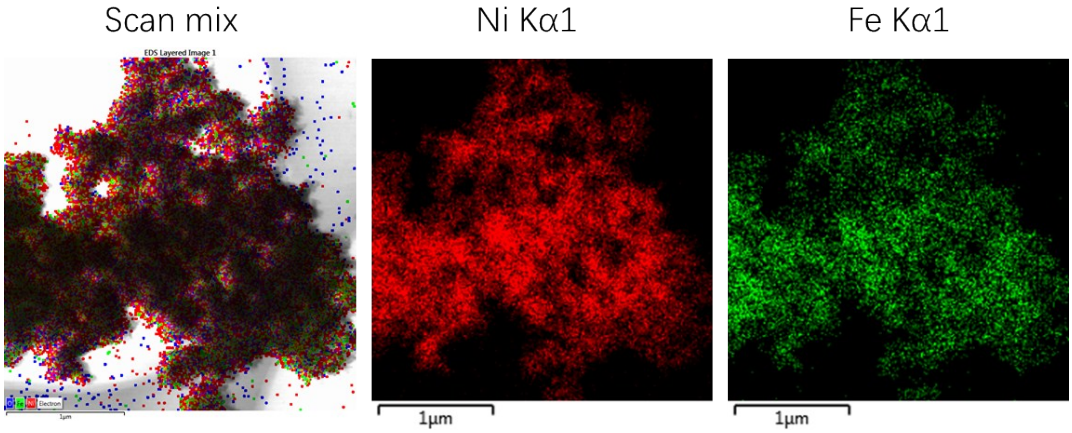

Figure S2. Energy dispersive x-ray spectroscopy of the sample Ni3Fe1-AMOR.

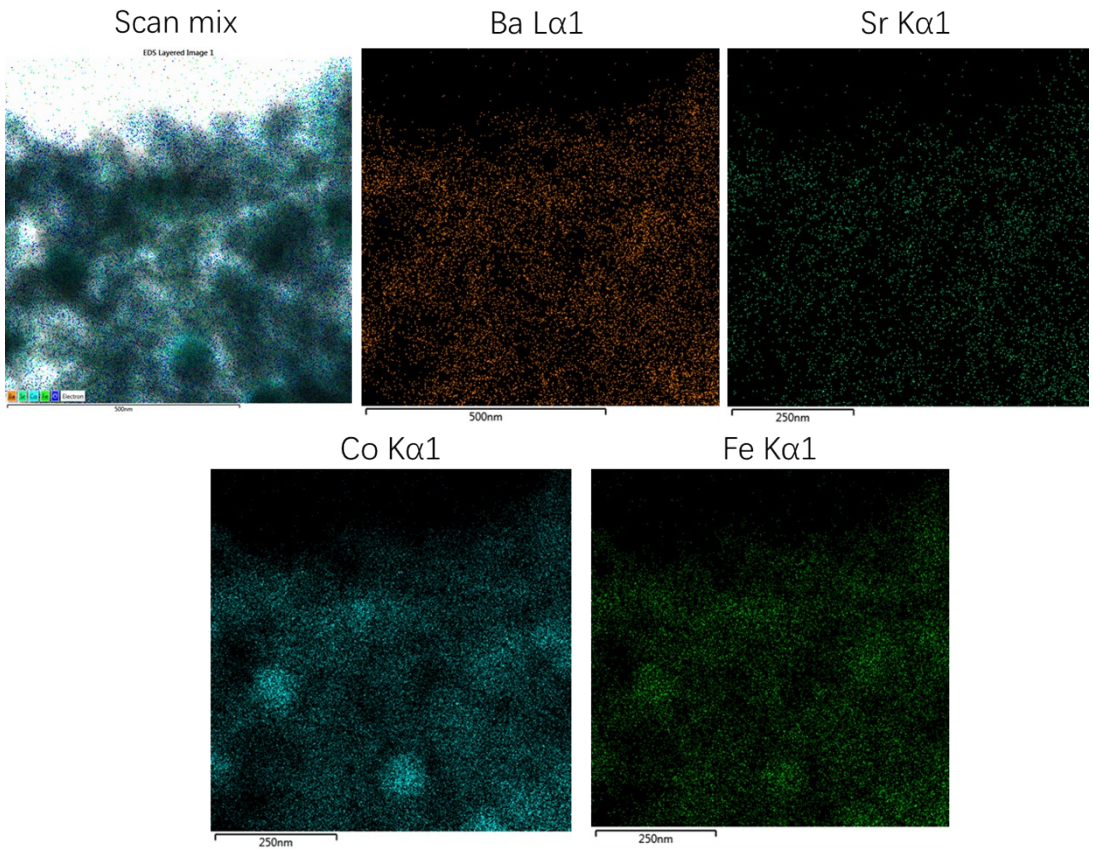

Figure S3. Energy dispersive x-ray spectroscopy of the sample Ba5Sr5Co8Fe2-AMOR.

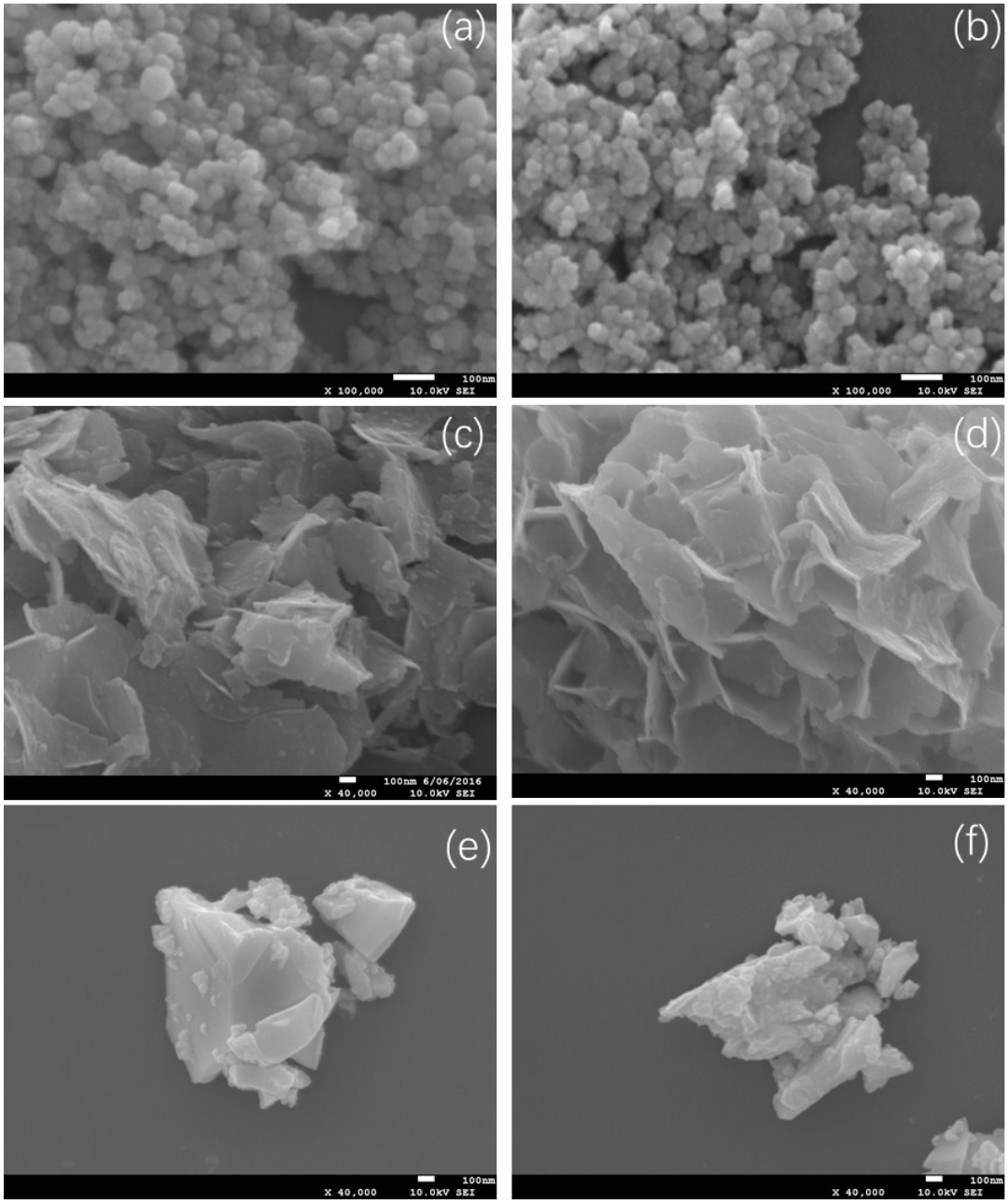

Figure S4. SEM images of the crystalline samples: Co1Fe2-SPIN (a), Ni1Fe2-SPIN (b), Co3Fe1-LDH (c), Ni3Fe1-LDH (d), Ba5Sr5Co8Fe2-PERO (e) and La6Sr4Co2Fe8-PERO (f). All scale bars are 100 nm.

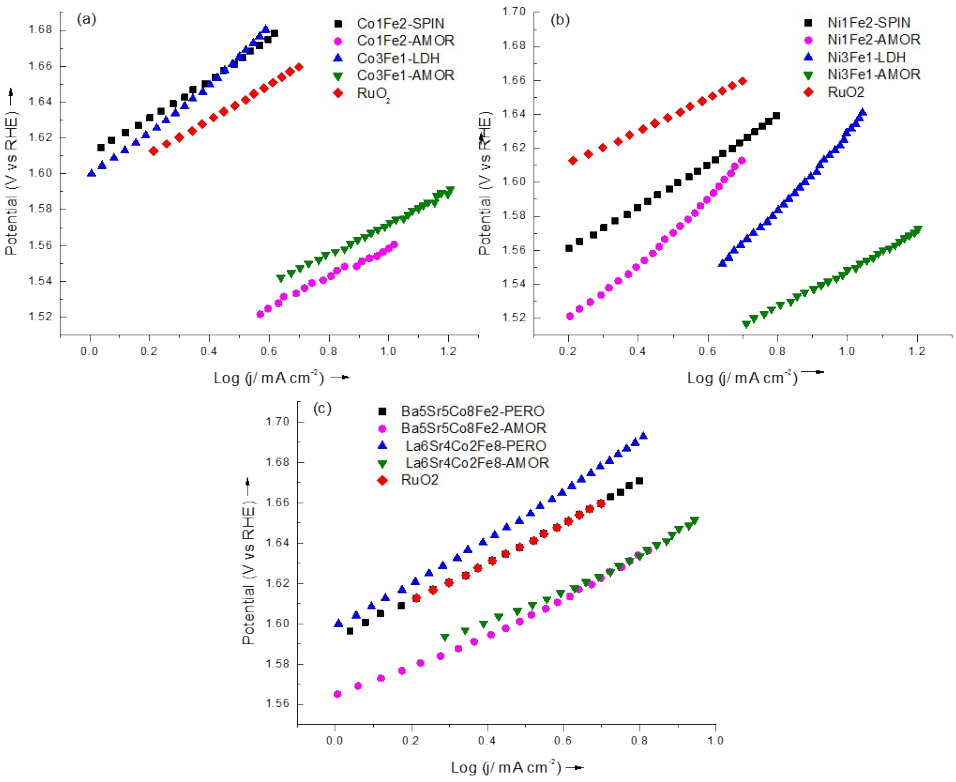

Figure S5. Comparison of the Tafel slopes of the amorphous catalysts and the corresponding crystalline metal oxides: Co-Fe binary catalysts (a), Ni-Fe binary catalysts (b) and quaternary catalysts (c).

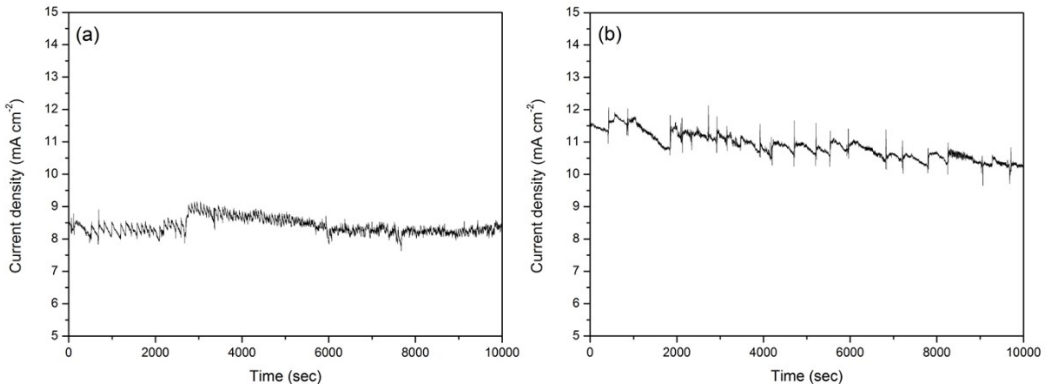

Figure S6. 10000 sec stability test of sample Co1Fe2-AMOR (a) and Ni3Fe1-AMOR (b) at an overpotential of 0.7 V vs Ag|AgCl in 0.1 M KOH solution.