Electronic Supplementary Material (ESI) for Dalton Transactions.

Supporting Information for

Aqueous-phase synthesis of layered double hydroxide nanoplates as catalysts for oxygen evolution reaction

Euiyoung Jung,[a] Jae Kyeom Kim,[b] Hyungsuk Choi,[a] Min Hyung Lee, [b,*] and Taekyung Yu,[a,*]

[a]*Department of Chemical Engineering, College of Engineering, Kyung Hee University, Youngin, 17104, Korea*

[b] *Department of Applied Chemistry, College of Applied Science, Kyung Hee University, Yongin, 17104, Korea*

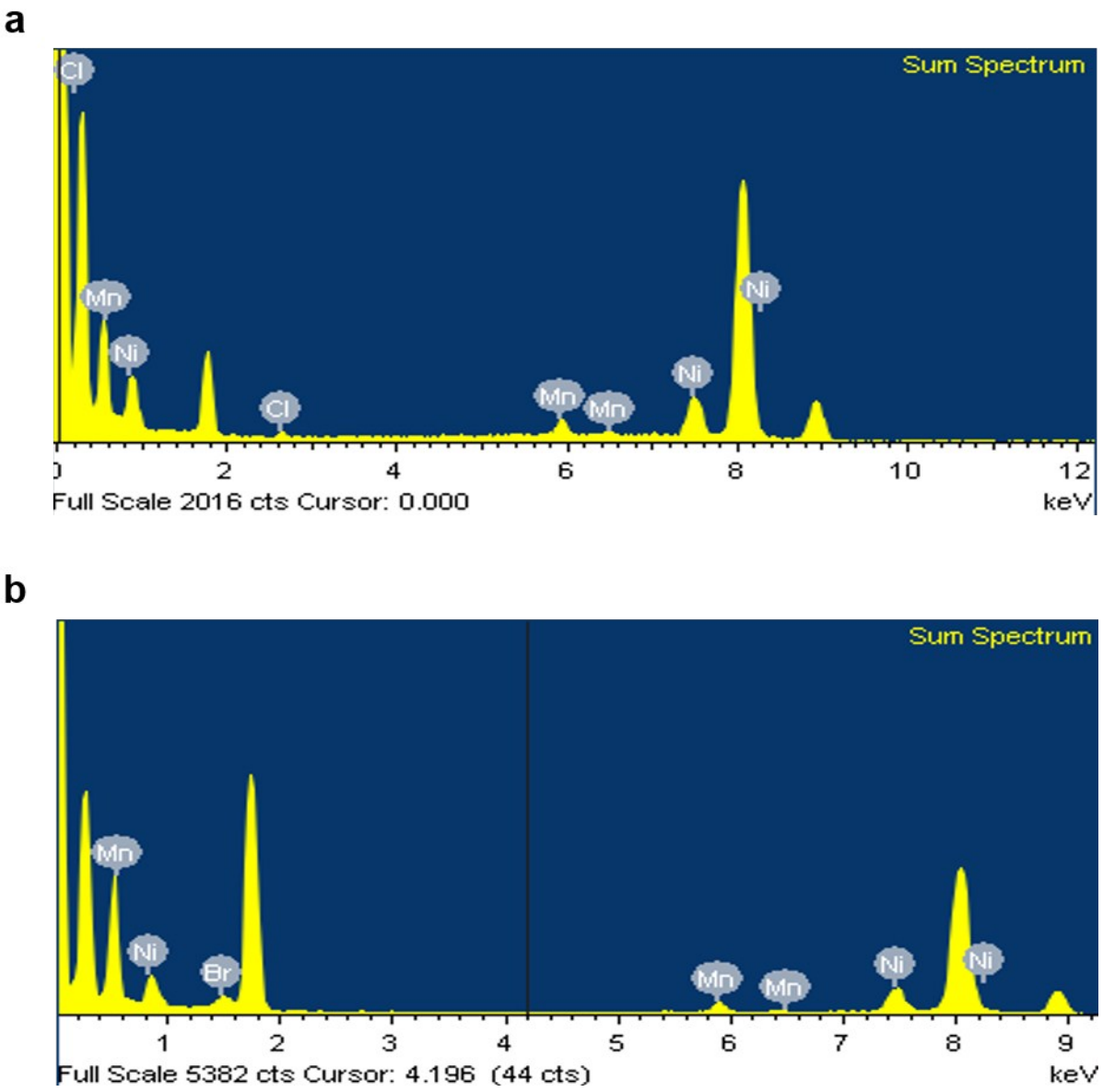

Fig. S1. EDX spectra of (a) Mn-Ni(Cl) LDH and (b) Mn-Ni(Br) LDH nanoplates shown in Fig. 1A and Fig. 1B, respectively.

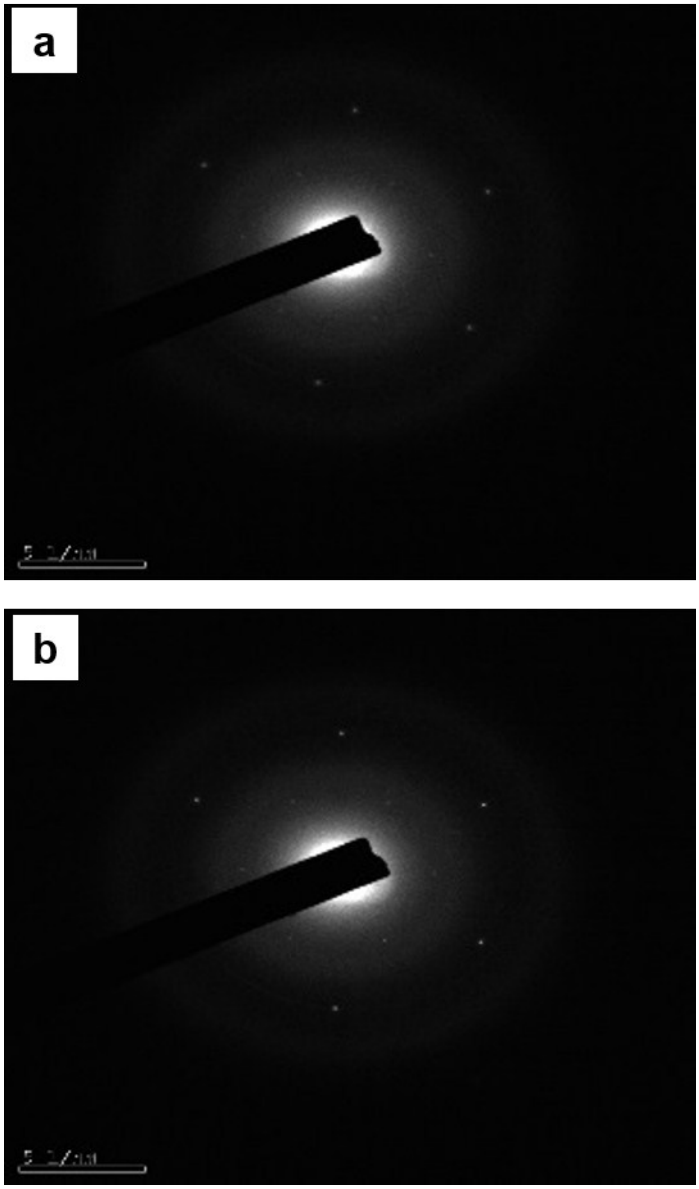

Fig. S2. ED patterns of (a) Mn-Ni(Cl) LDH and (b) Mn-Ni(Br) LDH single nanoplates shown in Fig. 1A and Fig. 1B, respectively.

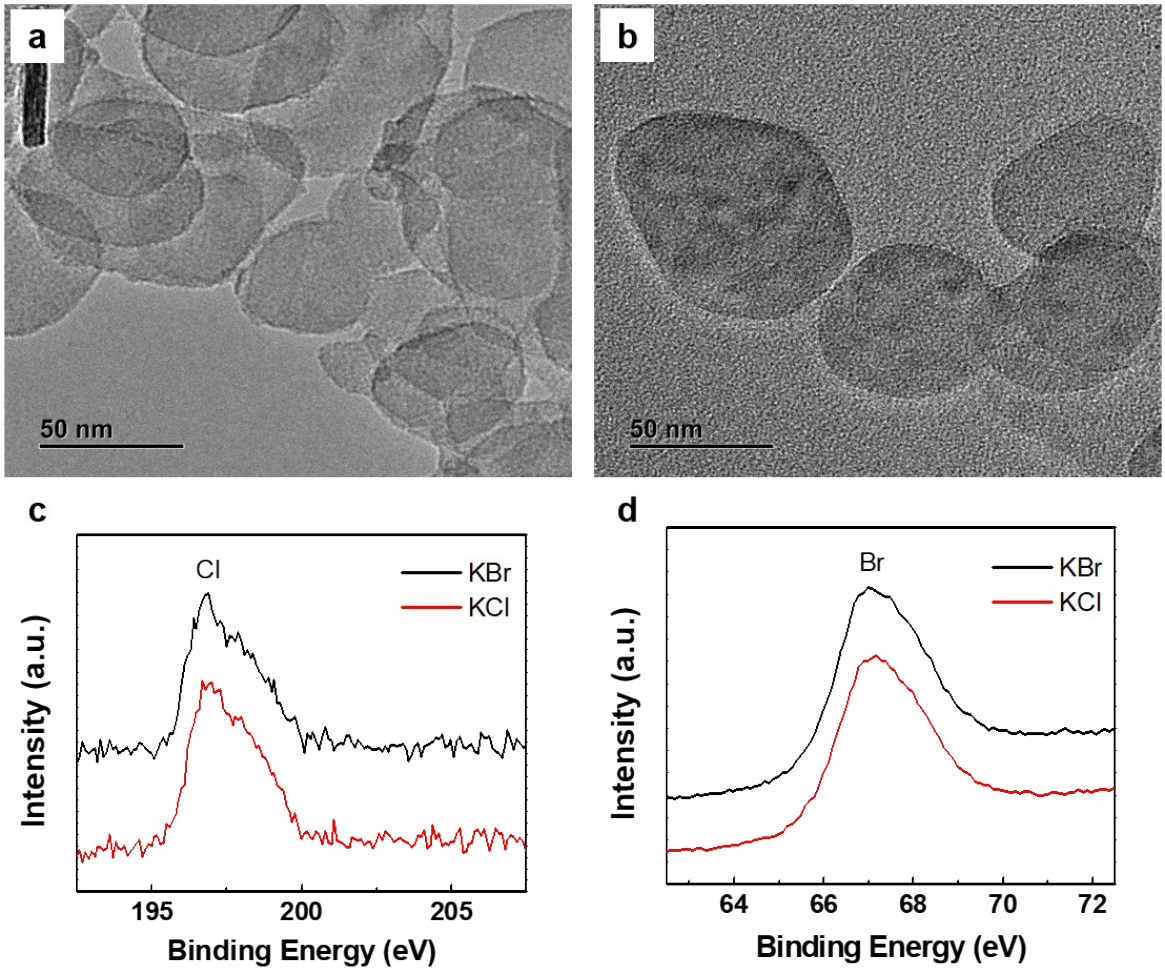

Fig. S3. (a) TEM image of the sample prepared under the same conditions as those in Fig.1A except that the synthesis was conducted in the presence of additional KCl (b) TEM image of the sample prepared under the same conditions as those in Fig.1B except that the synthesis was conducted in the presence of additional KBr (c) Cl 2p XPS core level spectrum and (d) Br 3d XPS core level spectrum of sample shown in Fig. S3A and S3B.

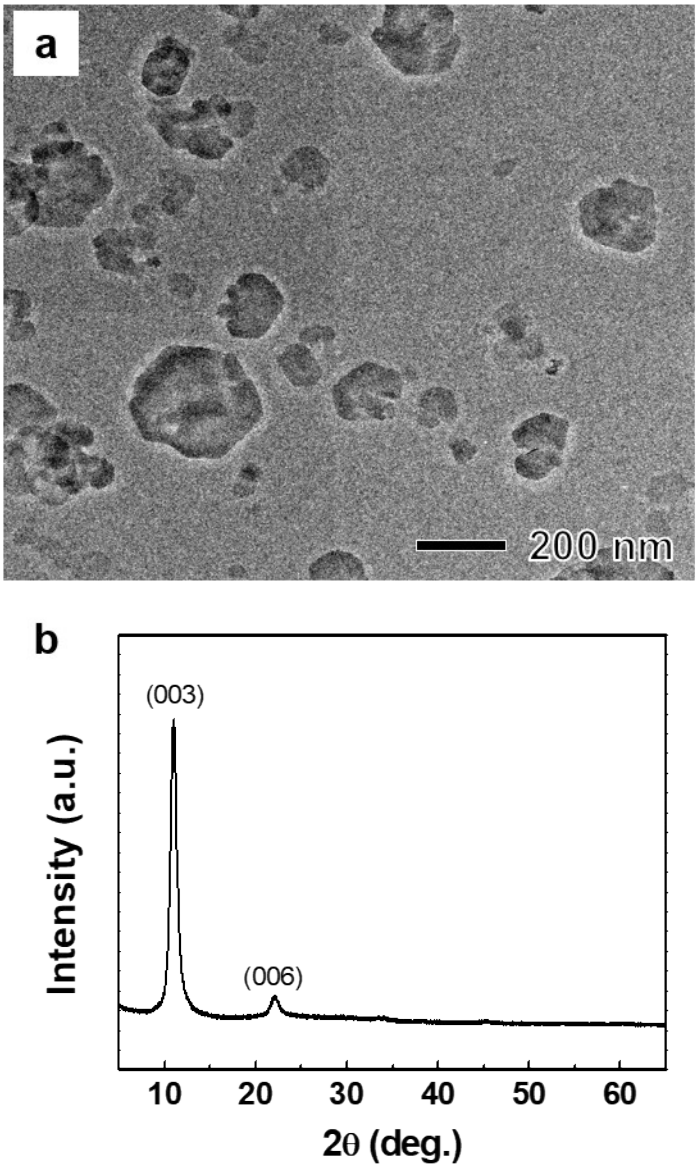

Fig. S4. (a) TEM image and (b) XRD pattern of Zn-Ni(Cl) LDH nanoplates synthesized by heating an aqueous solution containing $ZnCl_2$, $NiCl_2$, PEG, and octylamine at 90 °C for 10 h.