Supporting Information

Aluminum intercalation behaviours of $\{[Fe(Tp)(CN)_3]_2[M(H_2O)_2\}$ cyanido-bridged chain compounds in ionic liquid electrolyte

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Table S1 Elemental analysis

		Element percentage (%)		
		C	H	N
$\{Fe(Tp)(CN)_3\}_2\{Ni(H_2O)_2\} \cdot 3.3H_2O \cdot 0.4CH_3OH$	Calcd.	34.04	3.77	29.29
	Expt.	34.08	3.39	29.16
$\{Fe(Tp)(CN)_3\}_2\{Co(H_2O)_2\} \cdot 3H_2O \cdot 0.4CH_3OH$	Calcd.	34.24	3.72	29.46
	Expt.	34.24	3.32	29.32
$\{Fe(Tp)(CN)_3\}_2\{Cu(DMF)\} \cdot 0.9DMF \cdot 1.2H_2O$	Calcd.	38.86	3.92	30.37
	Expt.	38.86	3.50	30.21
$\{Fe(Tp)(CN)_3\}_4\{Mn(H_2O)_2\ Mn\} \cdot 1.2DMF \cdot 1.8H_2O$	Calcd.	37.38	3.86	30.32
	Expt.	37.46	3.46	30.17
$\{Fe(Tp)(CN)_3\}_4\{Zn(H_2O)_2\ Zn\}$	Calcd.	37.09	2.85	32.44
	Expt.	37.18	2.51	31.89

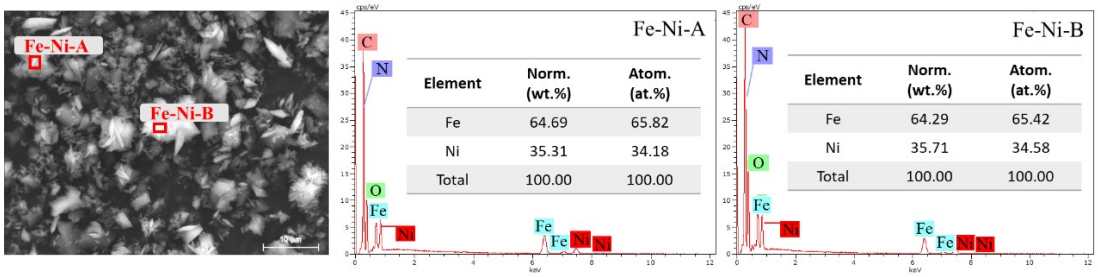

Fig. S1. EDS results for Fe-Ni product.

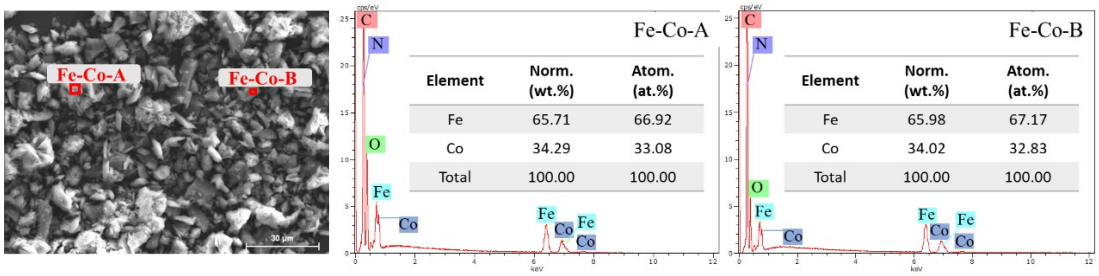

Fig. S2. EDS results for Fe-Co product.

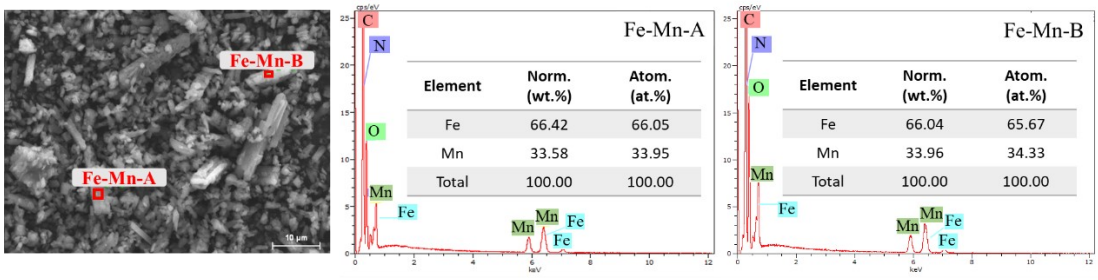

Fig. S3. EDS results for Fe-Mn product.

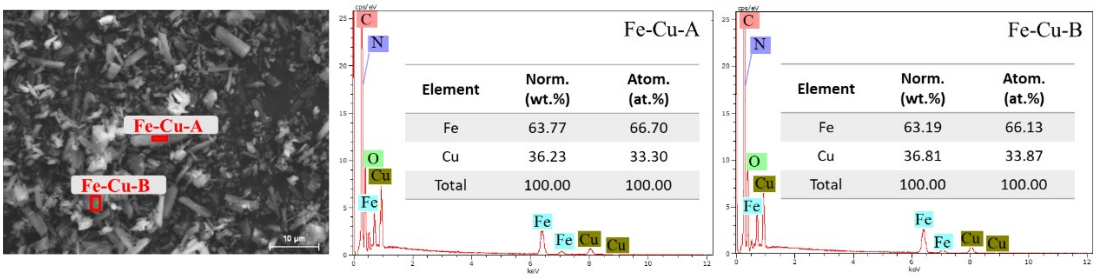

Fig. S4. EDS results for Fe-Cu product.

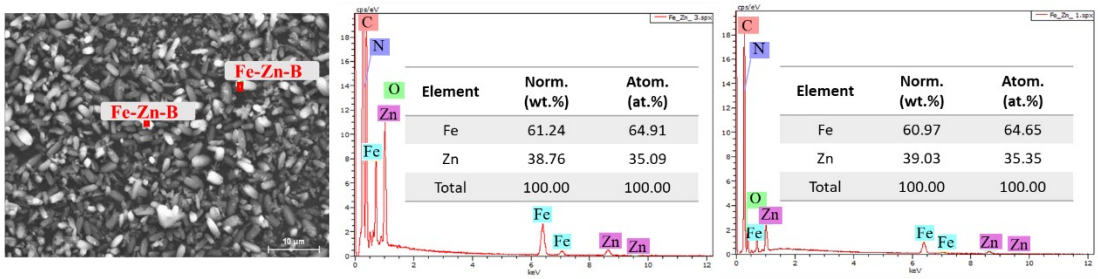

Fig. S5. EDS results for Fe-Zn product.

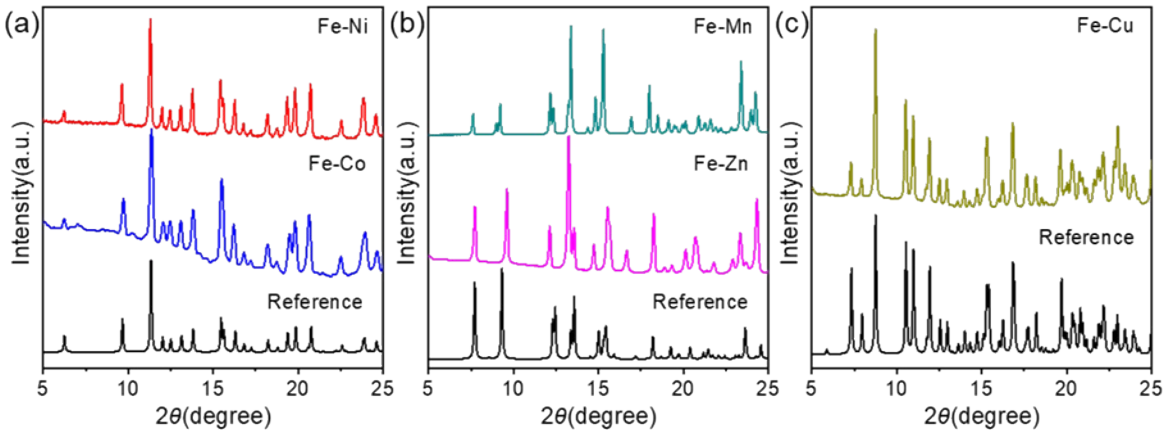

Fig. S6. Enlarged fragments of XRD patterns (a) Fe-Ni and Fe-Co, (b) Fe-Mn and Fe-Zn, (c) Fe-Cu.

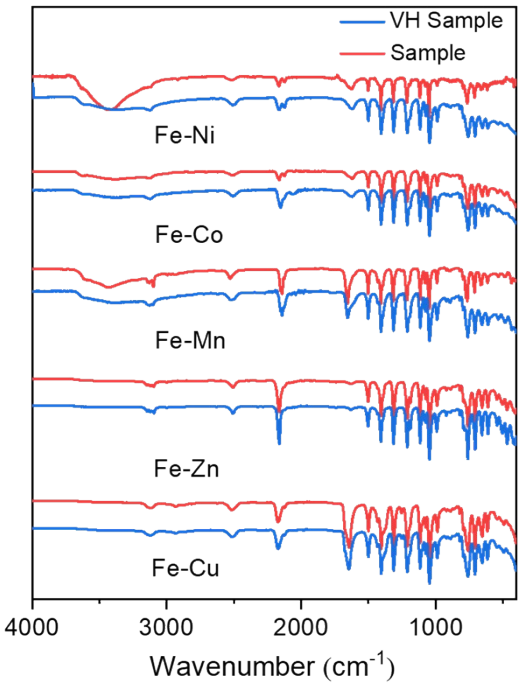

Fig. S7. IR spectra of compounds before and after vacuum heating (noted as VH) at 100 °C.

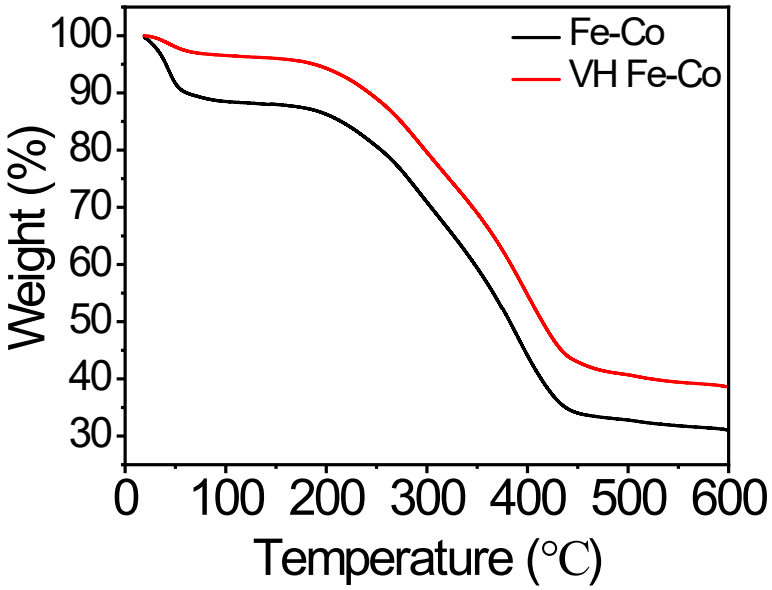

Fig. S8. TGA of Fe-Co and vacuum heated Fe-Co samples at 2°C/min under N_2 in the temperature range 2-600°C.

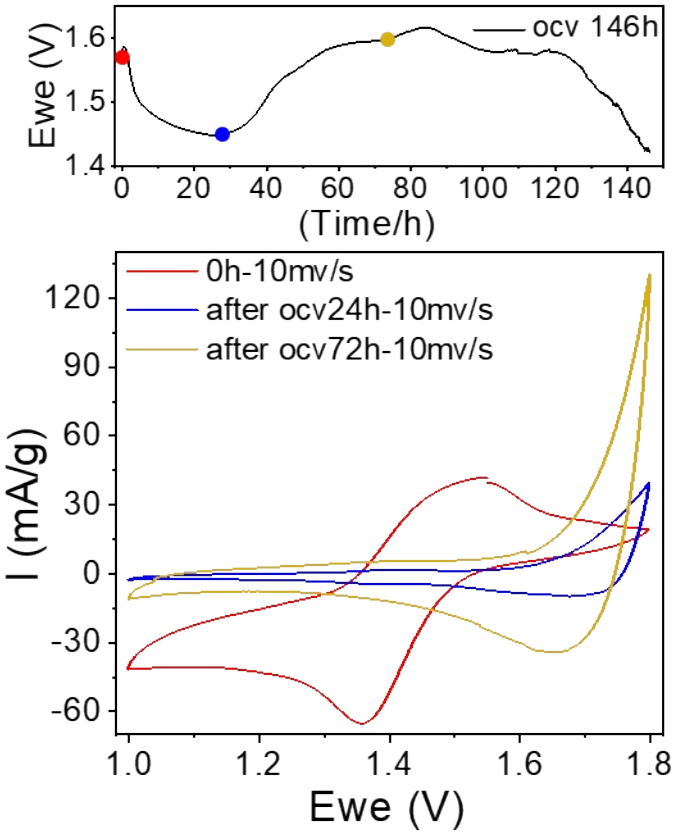

Fig. S9. Fe-Ni product: (a) Open Circuit Voltage (OCV); (b) Aggregate and independent curves of CVs with different delay times.

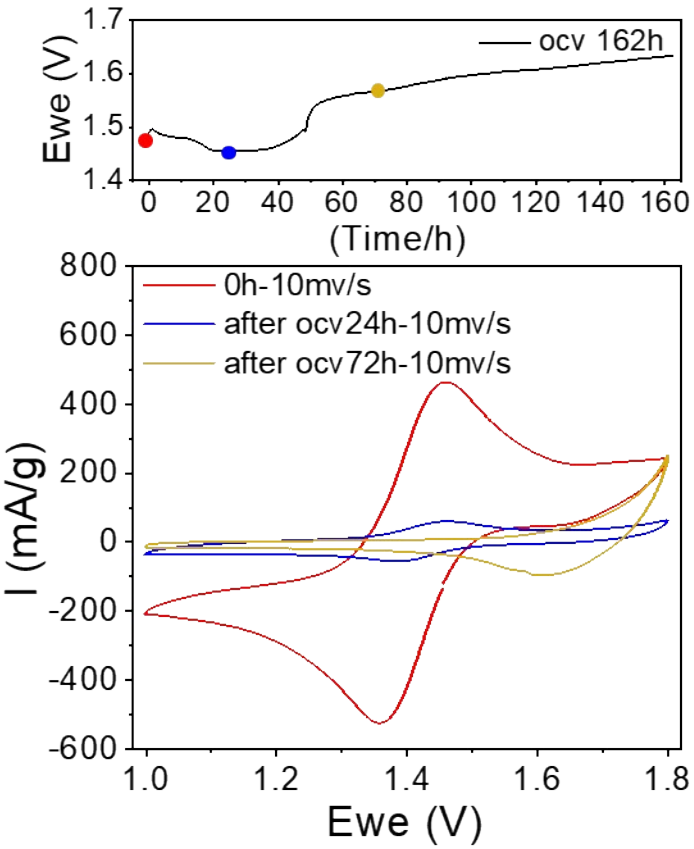

Fig.S10. Fe-Mn product: (a) Open Circuit Voltage (OCV); (b) Aggregate and independent curves of CVs with different delay times.

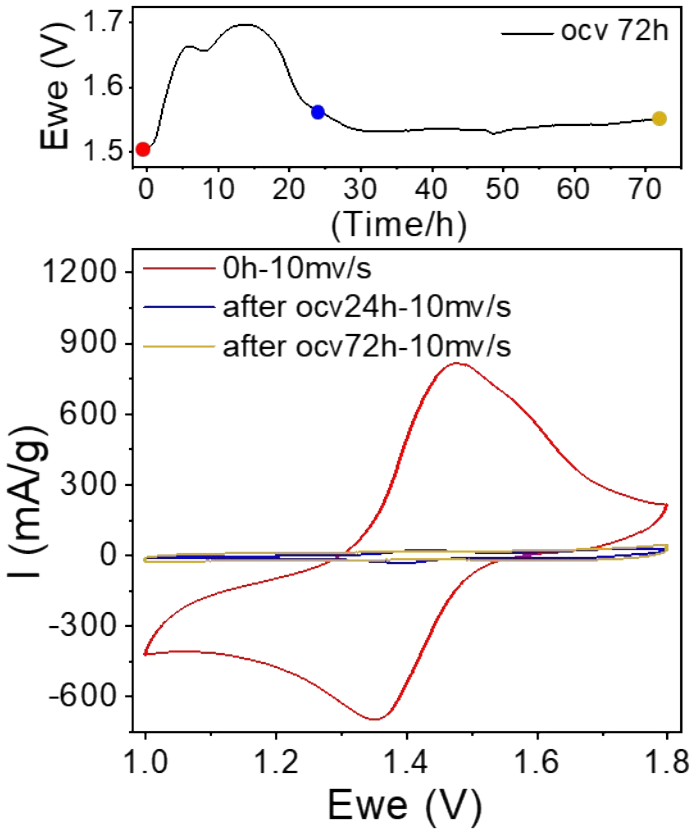

Fig.S11. Fe-Cu product: (a) Open Circuit Voltage (OCV); (b) Aggregate and independent curves of CVs with different delay times.