Supplementary

Analysis of microstructure properties of Ni-Fe MOFs and their influence on selective recognition of single and binary dye systems

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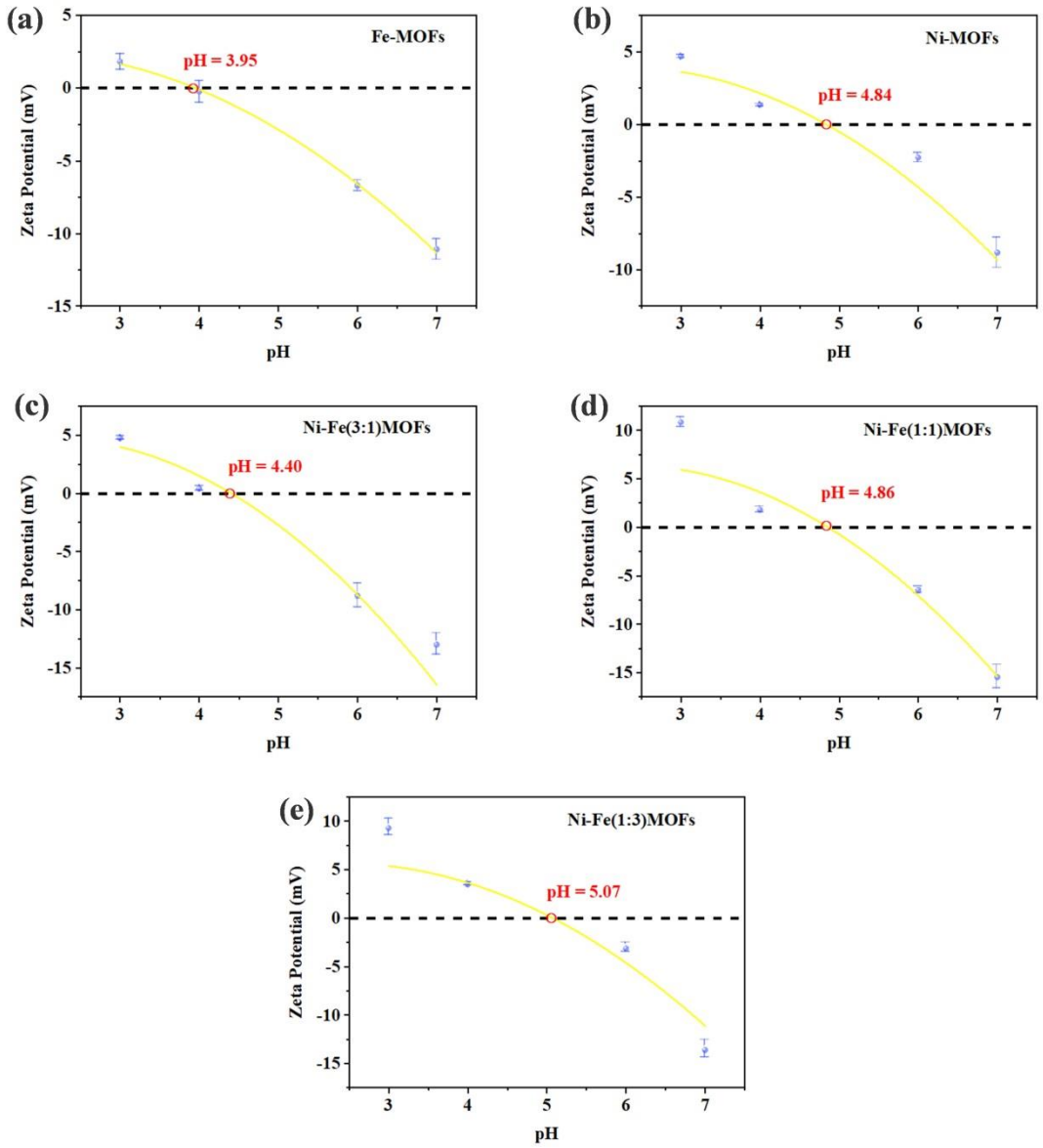

Supplementary Figure 1 Zeta potential of materials at different pH values

The position where the red circle is located is the isoelectric point. The yellow line is the non-linear fitting line of the Zeta potential at different pH values. The horizontal dashed line in the figure corresponds to a Zeta potential of 0.

Supplementary Table 1 The weight loss of materials at each temperature stage

Materials	< 230℃ (%)	230 ~ 350℃ (%)	350 ~ 900℃ (%)
Fe-MOFs	9.15	9.87	3.12
Ni-MOFs	0.46	31.55	53.69
Ni/Fe(3:1) MOFs	5.86	29.61	33.89
Ni/Fe(1:1) MOFs	14.26	14.14	10.38
Ni/Fe(1:3) MOFs	14.28	12.27	9.49

Supplementary Table 2 Comparison of parameters of different materials before and after dye adsorption

Materials	Surface area (m^2/g)		Aperture size (nm)	
	Before	After	Before	After
Fe-MOFs	281.2763	225.0684	10.0582	0.6107
Ni-MOFs	0.5369	12.5999	44.7778	17.6130
Ni/Fe (1:1) MOFs	67.1050	56.2795	13.8383	16.2075

Supplementary Table 3 Zeta potential of CCNPs-5 at different pH values

Materials	pH = 3 (mV)	pH = 4 (mV)	pH = 6 (mV)	pH = 7 (mV)
Fe-MOFs	1.82	-0.24	-6.71	-11.10
Ni-MOFs	4.69	1.35	-2.28	-8.82
Ni/Fe(3:1) MOFs	4.75	0.41	-8.82	-13.00
Ni/Fe(1:1) MOFs	10.83	1.80	-6.49	-15.47
Ni/Fe(1:3) MOFs	9.30	3.46	-3.12	-13.60