

Electronic Supporting Information

for

On the impact of metal ions proportion on physical properties of heterometallic metal-organic frameworks

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Table S1. The Na and K content determined by the ICP-OES analysis

Sample	Na (mol%)	K (mol%)
[CH ₃ CH ₂ NH ₃][K _{0.04} Na _{0.46} Cr _{0.5} (HCOO) ₃](2)	91.5	8.2
[CH ₃ CH ₂ NH ₃][K _{0.22} Na _{0.28} Cr _{0.5} (HCOO) ₃](3)	56.1	43.4

Table S2. The results of Rietveld refinement for samples with x = 0.04 and 0.22 compared to the literature data for [CH₃CH₂NH₃][Na_{0.5}Cr_{0.5}(HCOO)₃] (x = 0) and [CH₃CH₂NH₃][K_{0.5}Cr_{0.5}(HCOO)₃] (x = 1)

Sample	x	a (Å)	b (Å)	c (Å)	β (°)	V (Å ³)
[CH ₃ CH ₂ NH ₃][Na _{0.5} Cr _{0.5} (HCOO) ₃](1)	0	8.1047(1)	9.2639(1)	12.0459(1)	91.1766(10)	904.24(2)
[CH ₃ CH ₂ NH ₃][K _{0.04} Na _{0.46} Cr _{0.5} (HCOO) ₃](2)	0.04	8.1125	9.2897	12.0664	91.20	909.36
[CH ₃ CH ₂ NH ₃][K _{0.22} Na _{0.28} Cr _{0.5} (HCOO) ₃](3)	0.22	8.0985	9.4155	12.1641	90.96	927.53
[CH ₃ CH ₂ NH ₃][K _{0.5} Cr _{0.5} (HCOO) ₃](4)	1	8.0147(2)	9.8547(3)	12.3886(3)	90.052(3)	978.48(5)

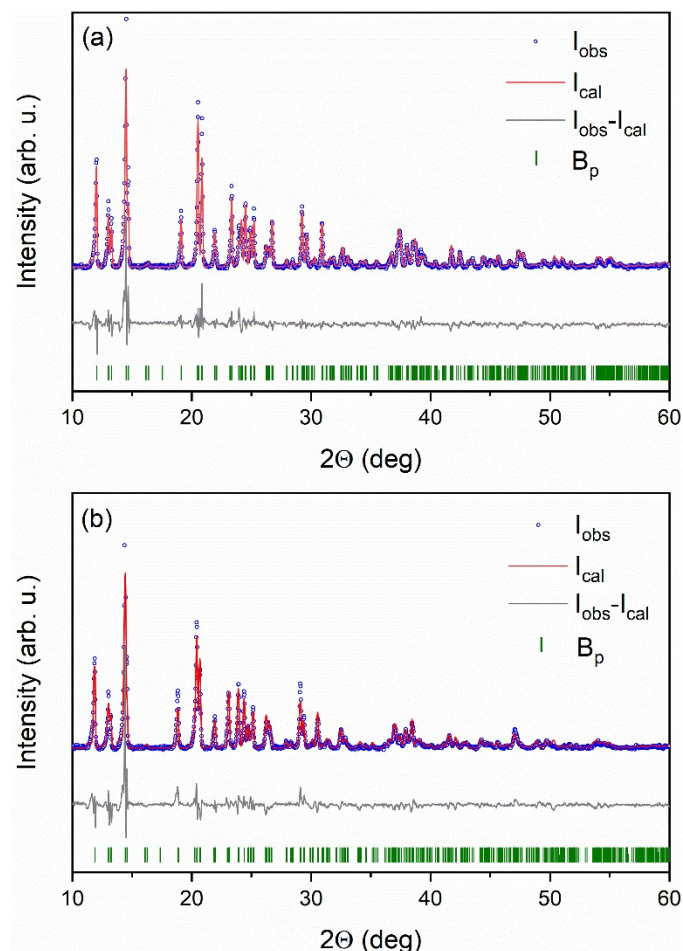


Figure S1. Experimental (I_{obs}), calculated (I_{cal}) and difference ($I_{obs} - I_{cal}$) XRD patterns together with Bragg positions (B_p) for the $x = 0.04$ (**2**) (a) and $x = 0.22$ (**3**) (b) samples; resulting parameters of fitting: $R_p = 3.38$, $wR_p = 5.09$, $Gof = 11.99$ (for $x = 0.4$) and $R_p = 3.48$, $wR_p = 5.88$, $Gof = 14.62$ (for $x = 0.22$)

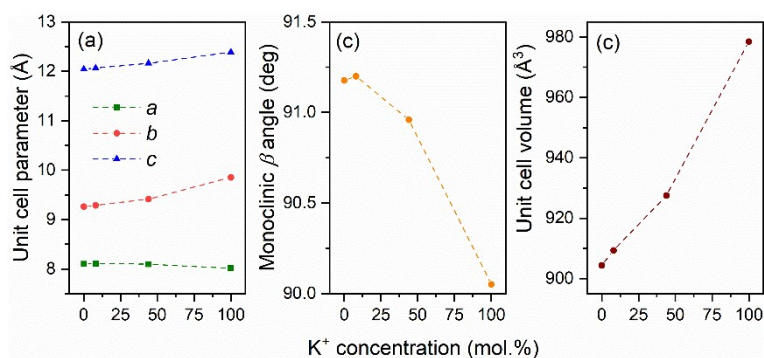


Figure S2. Evolution of unit cell parameters as a function of K^+ concentration

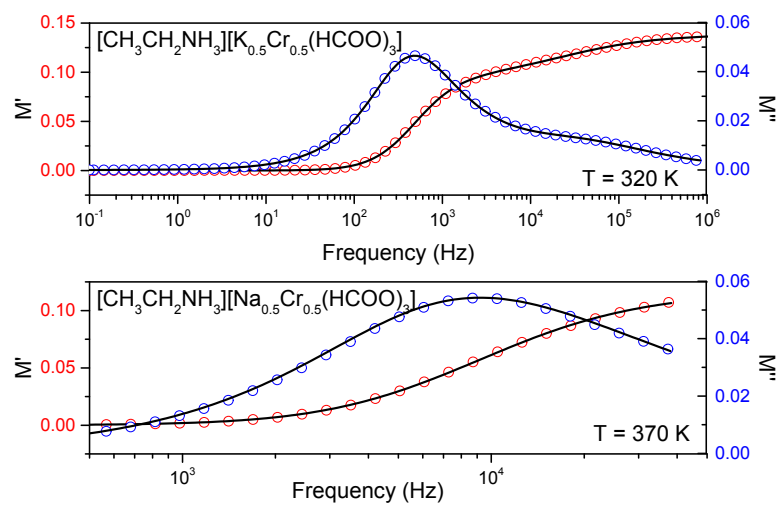


Figure S3. Frequency dependence of the complex dielectric permittivity