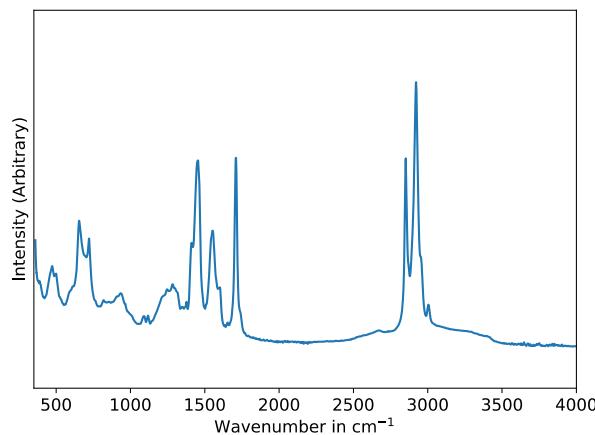


Electronic Supporting Information

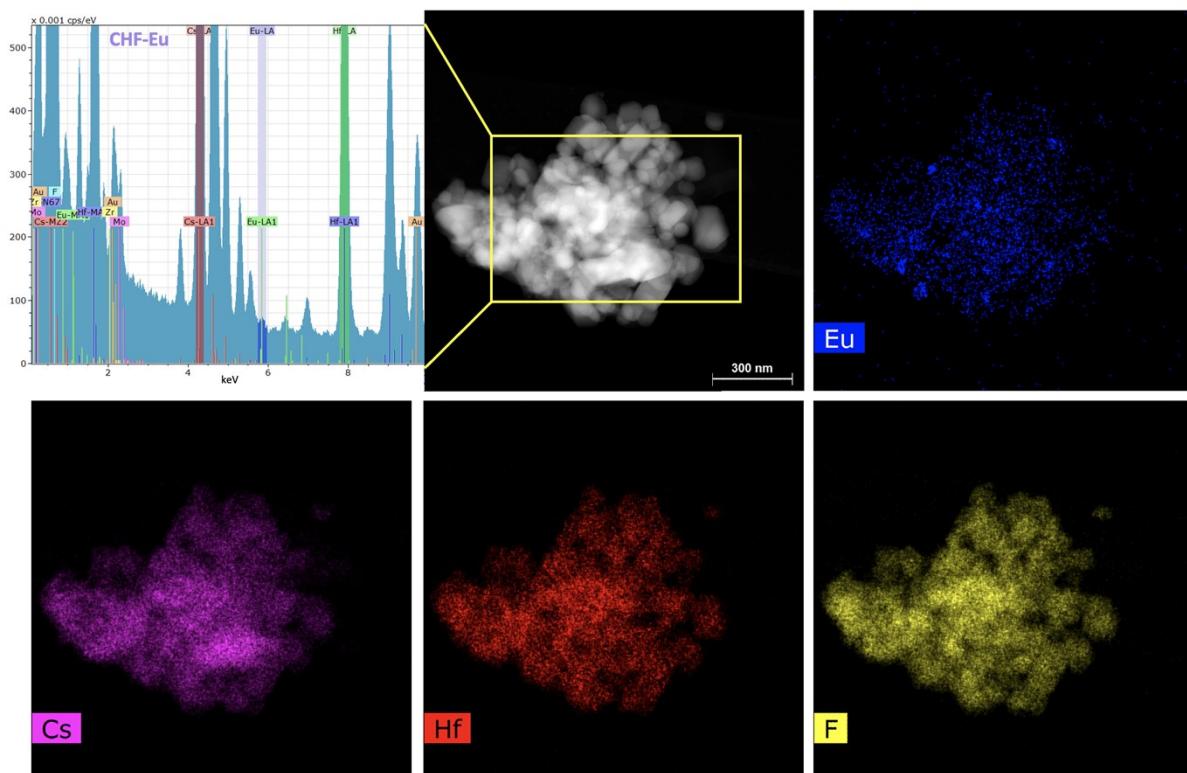
“Synthesis and Luminescence of Cs_2HfCl_6 micro- and Cs_2HfF_6 nanoparticles”

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ESI Figure 1 – ATR-IR spectrum of hafnium oleate as isolated.

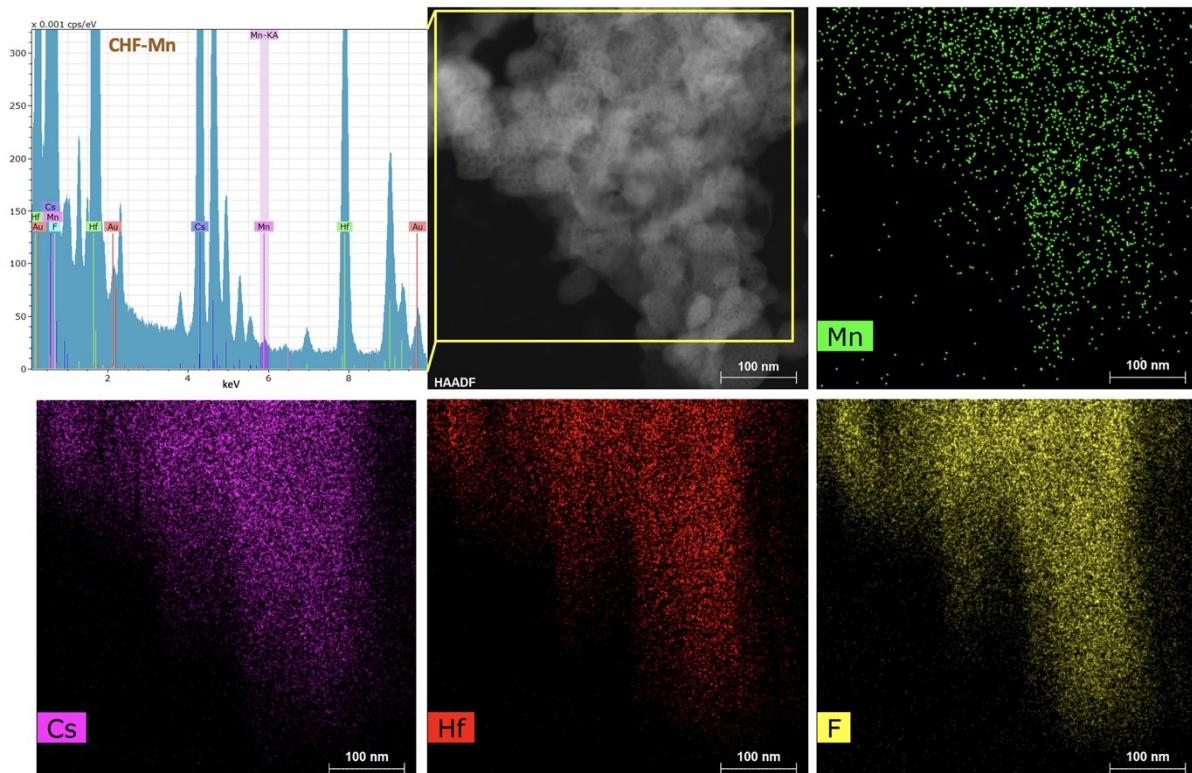


ESI Figure 2 – EDX spectrum of CHF-Eu nanoparticles, HAADF image of CHF-Eu nanoparticles, elemental maps of Eu, Cs, Hf and F in the area imaged. The artifacts in the EDX spectrum are due to the substrate used (gold) and the sample holder (molybdenum, zirconium).

Element	AN	series	[norm. wt.%]	[norm. at.%]	Error in wt.% (1 Sigma)
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Cesium	55	L-series	51.20081	26.61037	5.147812
Hafnium	72	L-series	31.74258	12.28415	3.202724
Europium	63	L-series	0.285718	0.129871	0.056459
Fluorine	9	K-series	16.7709	60.97561	0.531097
		Sum:	100	100	

ESI Table 1: Quantitative results for atom percentages in CHF-Eu from EDX.



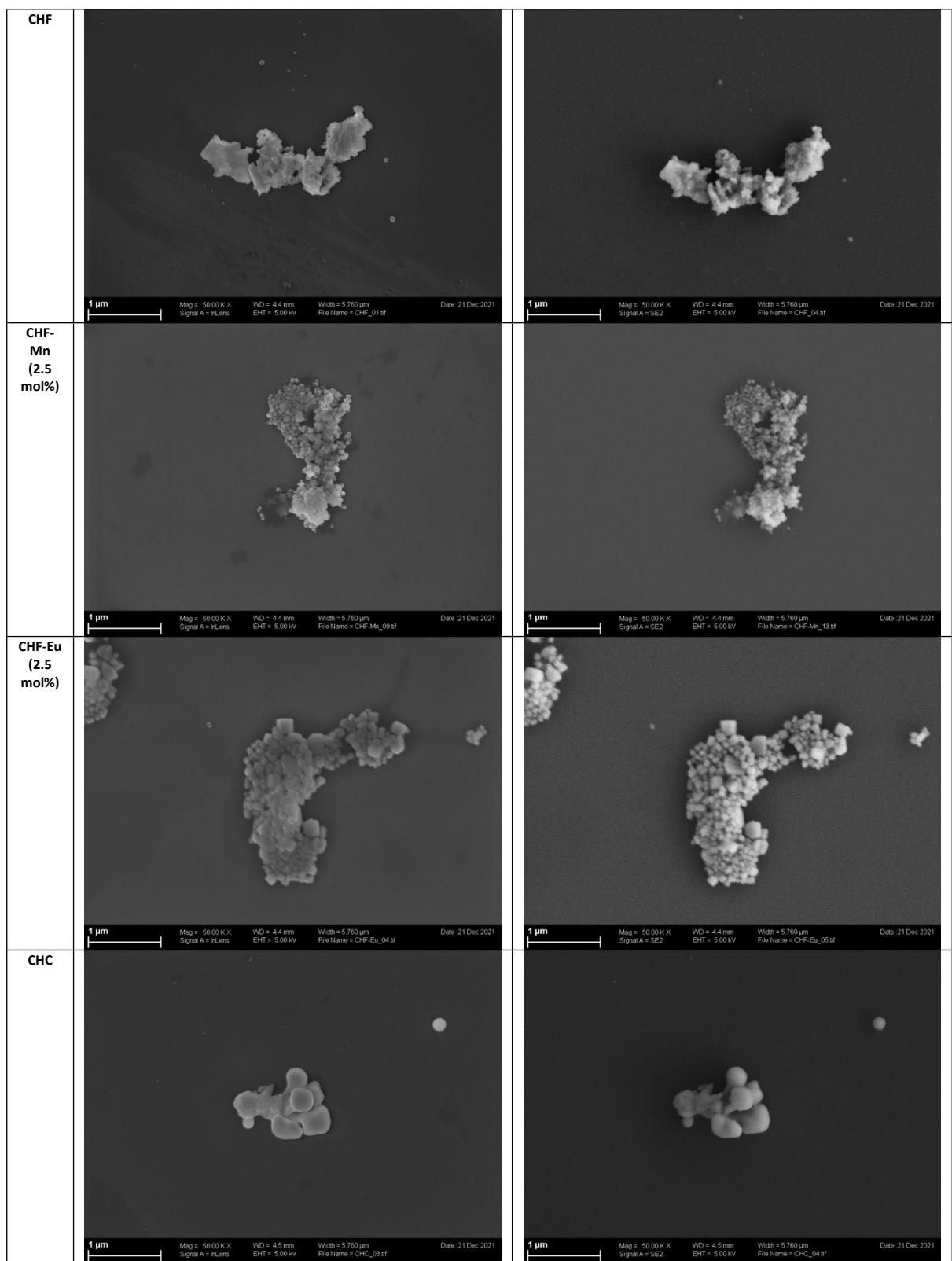
ESI Figure 3 – EDX spectrum of CHF-Mn nanoparticles, HAADF image of CHF-Mn nanoparticles, elemental maps of Mn, Cs, Hf and F in the area imaged. The artifacts in the EDX spectrum are due to the substrate used (gold) and the sample holder (molybdenum, zirconium).

Element	AN	series	[norm. wt.%]	[norm. at.%]	Error in wt.% (1 Sigma)
Cesium	55	L-series	53.4778535	30.08054931	5.379122082
Hafnium	72	L-series	32.11156123	13.44937041	3.24418543
Manganese	25	K-series	0.0911416	0.124021859	0.032107503
Fluorine	9	K-series	14.31944366	56.34605843	0.46149219
		Sum:	100	100	

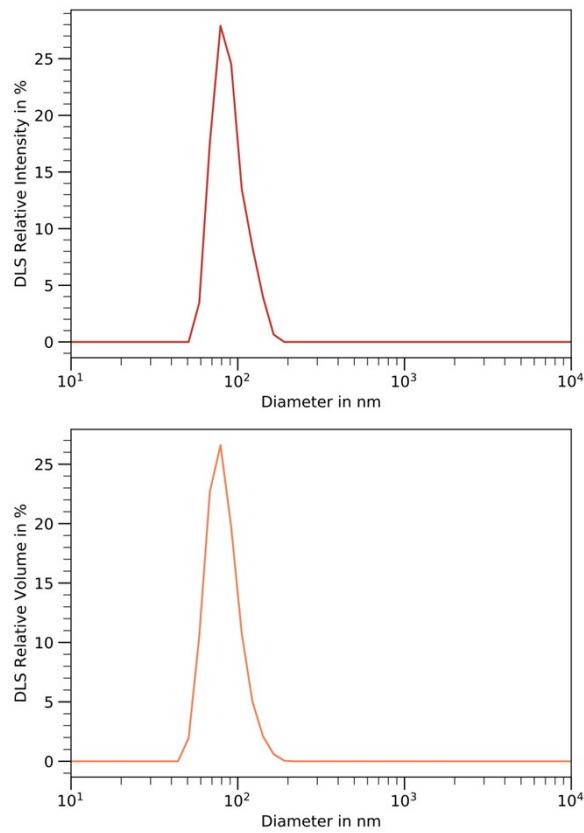
ESI Table 2: Quantitative results for atom percentages in CHF-Mn from EDX.

	2θ in °	hkl	a in Å	c in Å
CHF	27.840	1 1 0	6.40	5.03
	17.625	0 0 1		
CHF-Eu	27.780	1 1 0	6.42	5.07
	17.472	0 0 1		
CHF-Mn	27.772	1 1 0	6.42	5.05
	17.546	0 0 1		

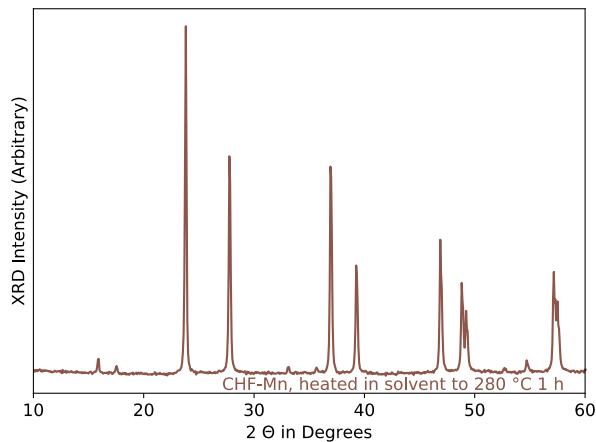
ESI Table 3: Lattice parameters for CHF, CHF-Eu and CHF-Mn.



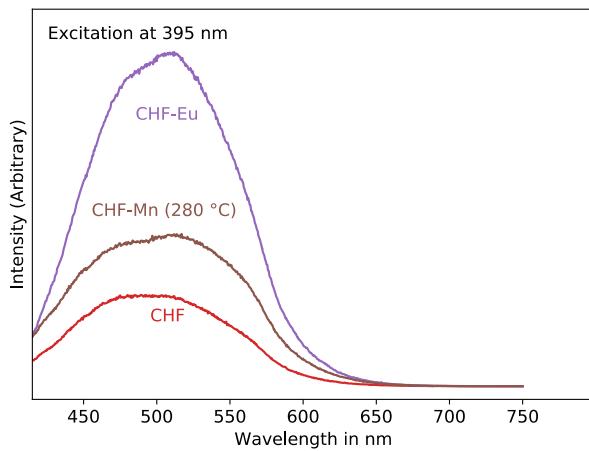
ESI figure 4 – SEM images of CHF, CHF-Mn (2.5 mol%), CHF-Eu (2.5 mol%) and CHC recorded using an InLens and an SE2 detector.



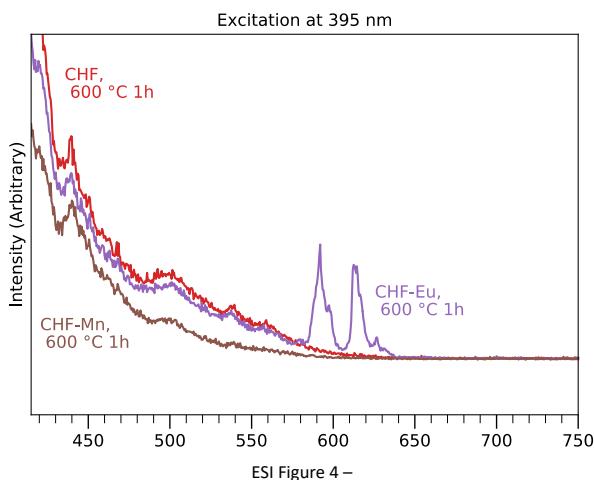
ESI figure 5 – DLS of a CHF dispersion in hexane, intensity, and volume distribution.



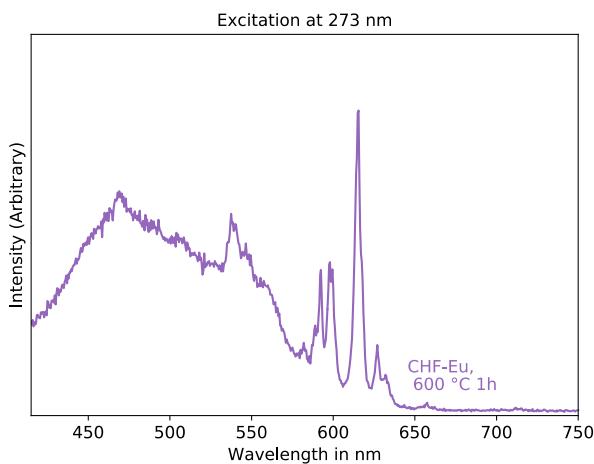
ESI Figure 6 – Diffractogram of CHF-Mn after heating in high boiling solvents to 280 °C for 1 hour.



ESI Figure 7 – Emission spectra of CHF, CHF-Eu, CHF-Mn excited at 395 nm.



ESI Figure 8 – Emission spectra of CHF, CHF-Mn and CHF-Eu samples calcined at 600 °C excited at 395 nm.



ESI Figure 9 – Emission spectrum of calcined CHF-Eu excited at 273 nm.