Electronic Supporting Information for:

Complexation of Am(III) and Eu(III) with DRAPA (N,N-dialkyl-6-amide-pyridine-2-carboxylic acid)

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Am-DMAPA1-3.ci

Eu-DMAPA1-3.cif

Cif file of AmL_3, CCDC 2278529 and EuL_3, CCDC 2278528

Table 1. Crystal data and structure refinement for AmL_3 and EuL_3complexes

Complex	AmL_3	EuL_3
Empirical formula	$C_{27}H_{27}N_6O_9Am$	$C_{27}H_{27}N_6O_9Eu$
Formula weight	821.54	731.58
Temperature，K	100.00(10)	100.01(10)
Crystal system	monocline, $P2_1/c$	monocline, $P2_1/c$
Unit cell dimensions	a = 1.471nm b =1.940 nm c = 1.227 nm	a = 1.470 nm b = 2.072 nm c = 1.222 nm
Volume, nm^3	3.297	3.547
Z	4	4
Density (calculated), g/cm^3	1.655	1.594
Absorption coefficient, μ /mm^{-1}	2.054	1.703
F(000)	1588.0	2004
Crystal size/mm	0.15 × 0.15 × 0.15	0.2 × 0.2 × 0.2
Radiation parameter	Mo Kα (λ = 0.71073)	Mo Kα(λ= 0.71073)
Theta range for data collection Θ，(°)	6.664 ~ 61.786	6.502 ~ 59.528
Index ranges	-18 ≤ h ≤ 20, -22 ≤ k ≤ 26, -17 ≤ l ≤ 14	-19 ≤ h ≤ 19, -21 ≤ k ≤ 20, -28 ≤ l ≤ 27
Reflections collected	34461	19746
Independent reflections	8262[R_{int} = 0.0825]	9946[R_{int} =0.0414]
Absorption correction	Semi-empirical from equivalents	Semi-empirical from equivalents
Refinement method	Full-matrix least-squares on F^2	Full-matrix least-squares on F^2
Data/restraints/parameters	8262/12/394	9946/26/394
Goodness-of-fit on F^2	1.047	1.026
Final R indices [I > 2σ(I)]	R_1 = 0.0497, wR_2 = 0.1174	R_1 = 0.0370, wR_2 = 0.0782
R indices (all data)	R_1 = 0.0838, wR_2 = 0.1314	R_1 = 0.0478, wR_2 = 0.0833
Largest diff. peak and hole	3750, -2230 e • nm^{-3}	1430, -970 e • nm^{-3}