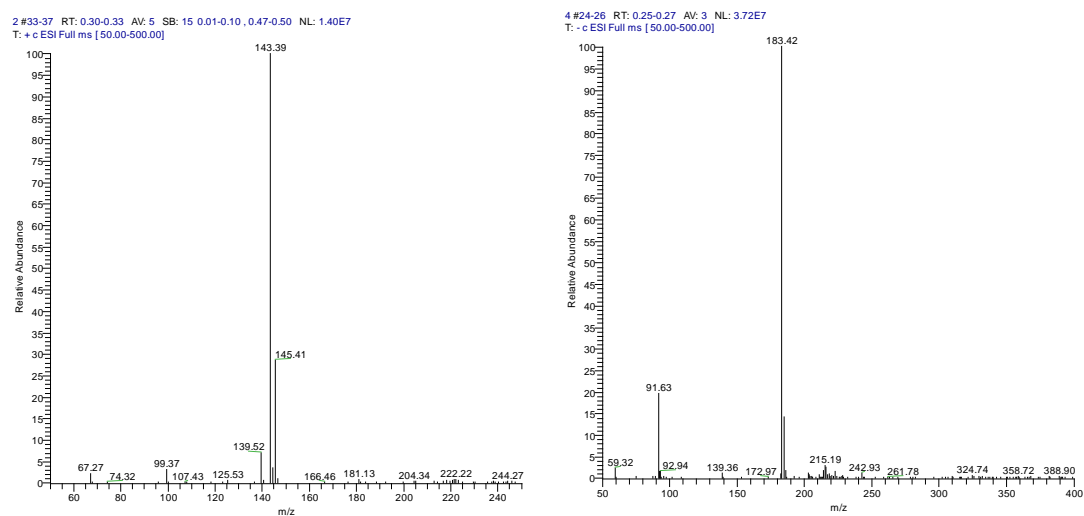


## Electronic Supplementary Information

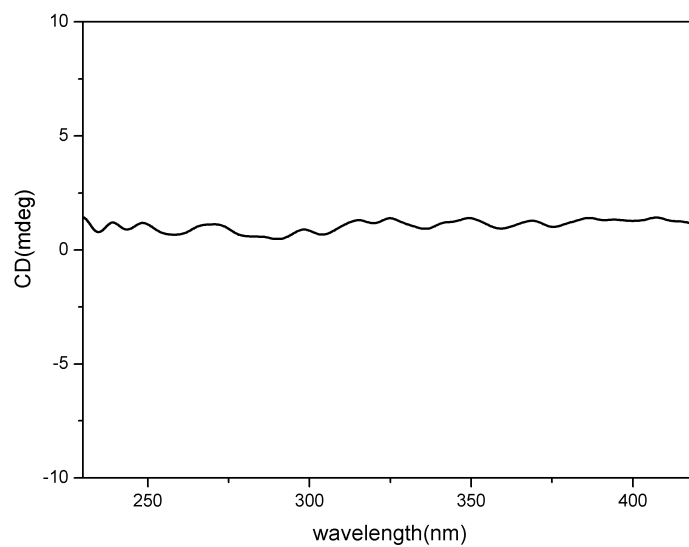
### Spontaneous resolution of lanthanide coordination polymers with 2-hydroxypyrimidine-4,6-dicarboxylic acid

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**Figure S1** Electrospray mass spectra for 2-chloro-4,6-dimethylpyrimidine (left, positive ion) and H<sub>3</sub>opdc (right, negative ion). The formula (formula weight) for these two compounds is C<sub>6</sub>H<sub>7</sub>ClN<sub>2</sub> (142.59) and C<sub>6</sub>H<sub>4</sub>N<sub>2</sub>O<sub>5</sub> (184.11), respectively.



**Figure S2** Circular dichroism spectrum for the as-synthesized bulky product of **2**.

**Table S1** Elemental analysis and IR spectral data for complexes [Ln(opdc)(H<sub>2</sub>O)<sub>2</sub>].8/3H<sub>2</sub>O (Ln = Eu, **1**; Gd, **2**; Tb, **3**; Dy, **4**; Er, **5**; Yb, **6**).

Complex	Elemental analysis (%)		IR band (cm <sup>-1</sup> )
	Calculated	Found	
<b>1</b>	C, 17.27; H, 2.48; N, 6.71	C, 17.21; H, 2.42; N, 6.69	3427s, 2944m, 2359s, 2342w, 1622s, 1558s, 1488w, 1399s, 1373w, 1276s, 1142s, 1101w, 1053m, 949w, 901w, 799s, 737m, 669m, 590m, 535m, 490w
<b>2</b>	C, 17.06; H, 2.45; N, 6.64	C, 17.04; H, 2.39; N, 6.60	3424s, 2929m, 2359m, 2341w, 1622s, 1558s, 1494m, 1400s, 1375w, 1276s, 1143s, 1103w, 1054m, 951w, 899w, 799s, 737m, 669w, 596m, 537w, 490m
<b>3</b>	C, 16.98; H, 2.44; N, 6.60	C, 16.96; H, 2.37; N, 6.56	3419w, 2923m, 2359s, 2342m, 1622s, 1558s, 1489w, 1399s, 1373w, 1277s, 1143s, 1103w, 1054w, 951w, 899w, 799s, 737m, 669m, 596w, 537w, 490w
<b>4</b>	C, 16.84; H, 2.42; N, 6.55	C, 16.80; H, 2.39; N, 6.49	3415s, 2939m, 2362w, 2335w, 1625s, 1560s, 1491m, 1402s, 1378w, 1277s, 1143s, 1103w, 1057w, 952w, 901w, 800s, 741m, 669w, 608m, 540w, 489m
<b>5</b>	C, 16.67; H, 2.39; N, 6.48	C, 16.66; H, 2.37; N, 6.45	3410s, 2924s, 2359w, 2333w, 1626s, 1563s, 1497m, 1403s, 1379w, 1279s, 1143s, 1103w, 1057m, 955w, 899w, 800s, 743s, 669w, 609w, 541w, 490m
<b>6</b>	C, 16.44; H, 2.36; N, 6.39	C, 16.37; H, 2.32; N, 6.36	3397s, 2924m, 2362w, 2335w, 1628s, 1560s, 1498w, 1405s, 1382m, 1279s, 1145s, 1103w, 1057m, 957w, 899w, 800s, 746s, 669w, 609w, 544w, 492m