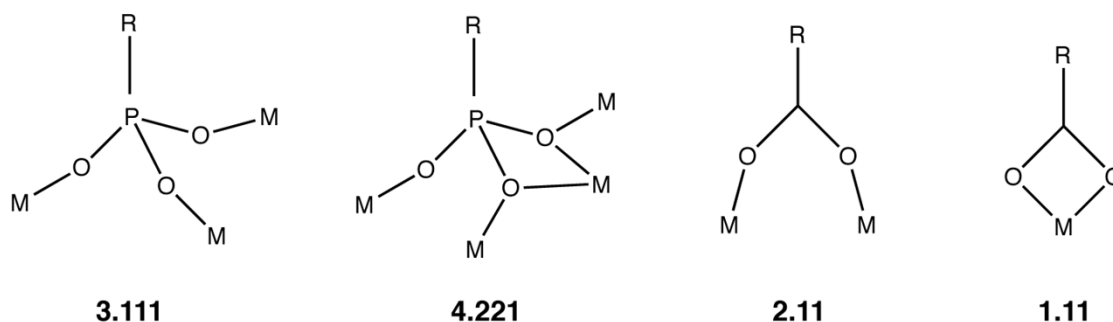


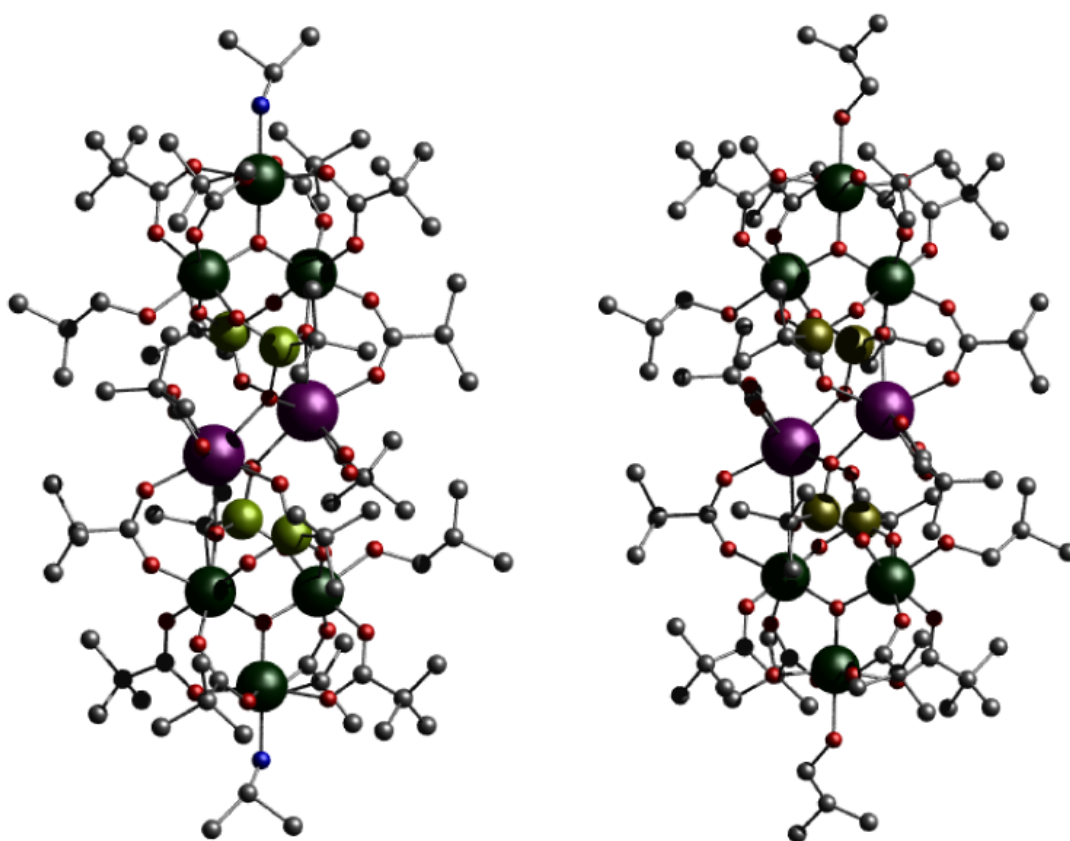
## Linking $\text{Cr}_3$ triangles through phosphonates and lanthanides: synthetic, structural, magnetic and EPR studies

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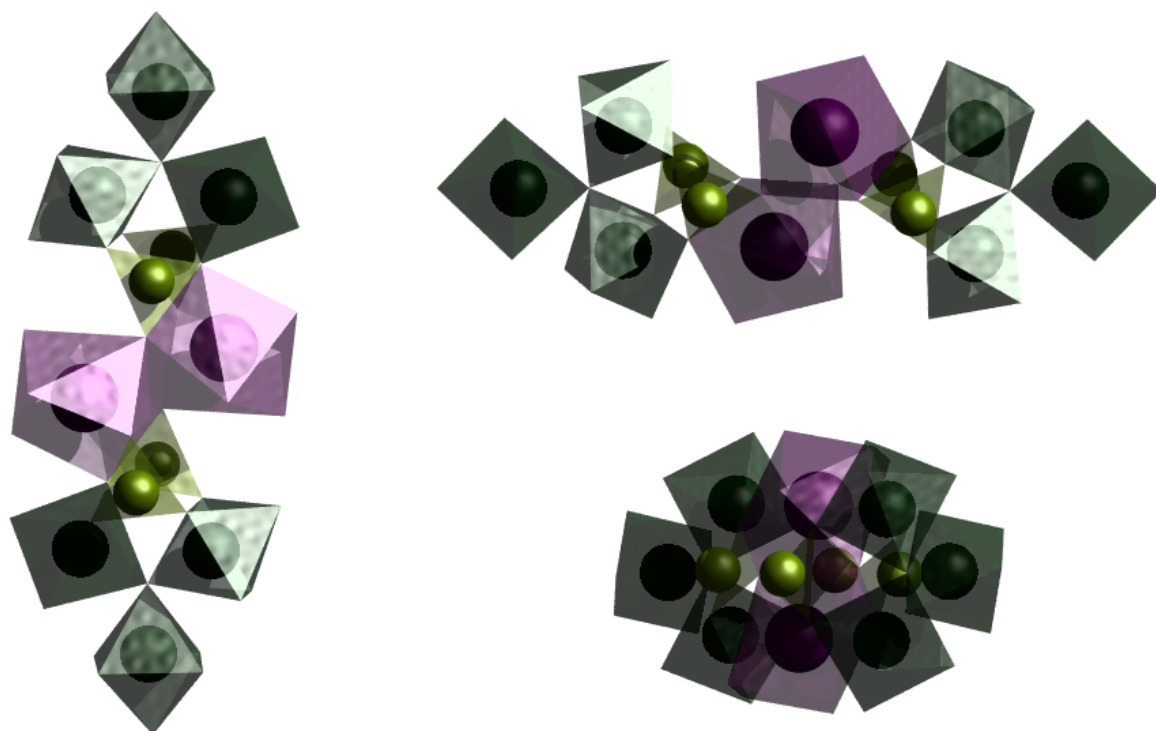
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**Figure S1.** Scheme for binding modes by Harris notation of the phosphonates and carboxylates.



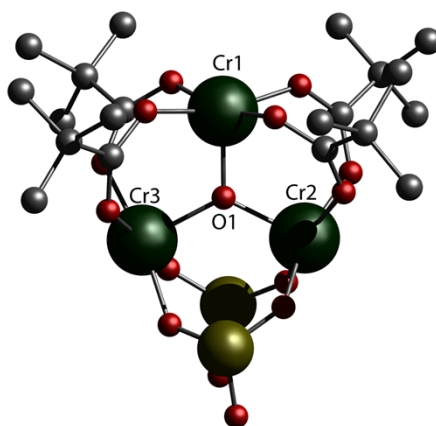
**Figure S2.** Crystal structure of cluster 2 showing  $t\text{BuOH}$  terminals (right); Crystal structure of clusters 1, 3, 4 and 5 showing amine terminals (left). Scheme: La, purple; Cr, dark green; P, light green; O, red; C, grey; N, cyan; H omitted for clarity.



**Figure S3.** Polyhedral view of  $\{\text{Cr}_6\text{Ln}_2\text{P}_4\}$  core.

**Table S1.** Selected bond distances and angles of **1–5**.

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
$\text{Cr}_1 \dots \text{Cr}_2 / \text{\AA}$	3.263(1)	3.258(3)	3.271(2)	3.273(2)	3.281(1)
$\text{Cr}_2 \dots \text{Cr}_3 / \text{\AA}$	3.427(1)	3.422(2)	3.425(1)	3.426(2)	3.424(1)
$\text{Cr}_1 \dots \text{Cr}_3 / \text{\AA}$	3.263(2)	3.268(3)	3.287(1)	3.235(1)	3.271(1)
$\text{O}_1 - \text{Ln}_1 / \text{\AA}$	6.560(4)	6.503(8)	6.492(4)	6.459(4)	6.470(4)



**Figure S4.**  $\{\text{Cr}_3\}$  moiety for  $\text{Cr}_6\text{Ln}_2\text{P}_4$  clusters. Scheme: La, purple; Cr, dark green; P, light green; O, red; C, grey; N, cyan; H omitted for clarity.