

## Supporting Information

### Curvature of the Lanthanide Contraction: An Explanation

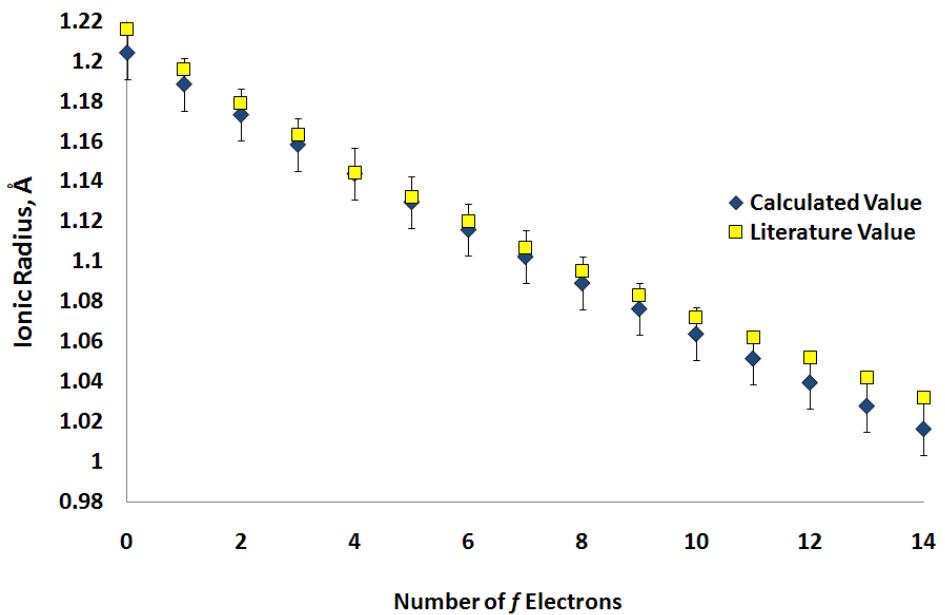
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**Fig. S1.** Comparison between the ionic radii of the lanthanide series calculated by making use of the refined values for  $a$  and  $b$  of Eq. (1) and those reported in the literature [1].

**Table S1.** Refined values for the parameters  $a$ ,  $b$ , and  $r_{(L)}$ 

Parameter	Refined value <sup>a</sup>
$a$	0.865(3) Å <sup>-1</sup>
$b$	0.0114(4) Å <sup>-1</sup>
$r_{(L)}$ ; L = Te <sub>(axial)</sub>	2.041(6) Å
$r_{(L)}$ ; L = H <sub>2</sub> O <sub>(capping)</sub>	1.512(5) Å

<sup>a</sup> σ in parentheses**Table S2.** Correlation coefficient matrix of the refined parameters  $a$ ,  $b$ ,  $r_{(L)}$ .

	$a$	$b$	$r_{(L)}$ ; L = Te <sub>(axial)</sub>	$r_{(L)}$ ; L = H <sub>2</sub> O <sub>(capping)</sub>
$a$	1.0000	-0.7271	0.2233	0.4488
$b$		1.0000	0.1052	-0.0867
$r_{(L)}$ ; L = Te <sub>(axial)</sub>			1.0000	0.2362
$r_{(L)}$ ; L = H <sub>2</sub> O <sub>(capping)</sub>				1.0000

## References

- [1] R. Shannon, Acta Cryst. A32 (1976) 751.