

Table s1. Anisotropic displacement parameters ( $\text{\AA}^2$ ) of monoclinic  $\text{KGd}(\text{WO}_4)_2$ . The anisotropic displacement factor exponent takes the form:  $-2\mathbf{p}^2 [h^2 a^{*2} U_{11} + \dots + 2 h k a^* b^* U_{12}]$

Atom	$U_{11}$	$U_{22}$	$U_{33}$	$U_{23}$	$U_{13}$	$U_{12}$
Gd	0.015(1)	0.013(1)	0.014(1)	0	0.010(1)	0
W	0.015(1)	0.013(1)	0.014(1)	0.000(1)	0.010(1)	0.000(1)
K	0.018(1)	0.018(1)	0.016(1)	0	0.012(1)	0
O1	0.060(7)	0.039(5)	0.048(5)	-0.003(5)	0.039(5)	-0.003(5)
O2	0.056(6)	0.040(5)	0.046(5)	0.001(4)	0.036(5)	-0.001(4)
O3	0.051(6)	0.044(5)	0.044(5)	0.000(4)	0.033(5)	-0.001(5)
O4	0.055(6)	0.044(5)	0.043(4)	0.000(5)	0.037(5)	0.002(5)