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**Data Table 30 K<sub>2</sub>PtCl<sub>6</sub>**

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Cubic, space group *Fm3m*, No. 225;  $a = 9.755 \text{ \AA}$ ;  $Z = 4$ ,  $V = 928.28 \text{ \AA}^3$

*Atomic Positions*

Pt in 4(*a*): 0,0,0; fc

Cl in 24(*e*):  $\pm(x,0,0; 0,x,0; 0,0,x)$ ;  $x = 0.240$ ; fc

K in 8(*c*):  $\pm \frac{1}{4},\frac{1}{4},\frac{1}{4}$ ; fc

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**Data Table 5 V<sub>2</sub>O<sub>5</sub> (14)**

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Orthorhombic, space group *Pmmn*, No. 59;  $a = 11.51$ ,  $b = 3.56$ ,  $c = 4.37 \text{ \AA}$ ;  
 $Z = 2$ ,  $V = 179 \text{ \AA}^3$

*Atomic Positions*

V in 4(*f*):  $x,0,z; \bar{x},0,z; \frac{1}{2} - x,\frac{1}{2},\bar{z}; \frac{1}{2} + x,\frac{1}{2},\bar{z}$ ;  $x = 0.1487$ ,  $z = 0.1086$

O(1) in 4(*f*):  $x = 0.1460$ ,  $z = 0.4713$

O(2) in 4(*f*):  $x = 0.3191$ ,  $z = -0.0026$

O(3) in 2(*a*):  $0,0,z; \frac{1}{2},\frac{1}{2},\bar{z}$ ;  $z = -0.0031$

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**Data Table 3 Anhydrite, CaSO<sub>4</sub> (22)**

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Orthorhombic, space group *Cmcm*, No. 63;  $a = 6.998$ ,  $b = 6.245$ ,  $c = 7.006 \text{ \AA}$ ,  
 $b/a = 0.8924$ ,  $b/c = 0.8914$ ;  $Z = 4$ ,  $V = 306.2 \text{ \AA}^3$

*Atomic Positions:* (0,0,0;  $\frac{1}{2},\frac{1}{2},0$ )+

Ca in 4(*c*):  $\pm(0,y,\frac{1}{4})$ ;  $y = 0.6524$

S in 4(*c*):  $y = 0.1556$

O(1) in 8(*g*):  $\pm(x,y,\frac{1}{4}; \bar{x},y,\frac{1}{4})$ ;  $x = 0.1695$ ,  $y = 0.0155$

O(2) in 8(*f*):  $\pm(0,y,z; 0,y,\frac{1}{2} - z)$ ;  $y = 0.2976$ ,  $z = 0.0817$

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**Data Table 15 B-Type Eu<sub>2</sub>O<sub>3</sub> (35)**

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Monoclinic, space group *C2/m*, No. 12;  $a = 14.1105$ ,  $b = 3.6021$ ,  $c = 8.8080 \text{ \AA}$ ,  
 $\beta = 100.037^\circ$ ;  $Z = 6$ ,  $V = 440.84 \text{ \AA}^3$

*Atomic Positions:* (0,0,0;  $\frac{1}{2},\frac{1}{2},0$ )+

Eu(1) in 4(*i*):  $\pm(x,0,z)$ ;  $x = 0.63740$ ,  $z = 0.4897$

Eu(2) in 4(*i*):  $x = 0.68972$ ,  $z = 0.13760$

Eu(3) in 4(*i*):  $x = 0.96635$ ,  $z = 0.18763$

O(1) in 4(*i*):  $x = 0.1291$ ,  $z = 0.2855$

O(2) in 4(*i*):  $x = 0.8248$ ,  $z = 0.0267$

O(3) in 4(*i*):  $x = 0.7961$ ,  $z = 0.3732$

O(4) in 4(*i*):  $x = 0.4734$ ,  $z = 0.3431$

O(5) in 2(*b*):  $0,\frac{1}{2},0$