

Supplementary Table 2: Bond lengths (Å) table for fairbankite

Pb1–O4 2.30(2)	Pb9–O21 2.376(18)	Te5–O13 1.869(19)
Pb1–O24 2.42(2)	Pb9–O15 2.49(2)	Te5–O14 1.899(19)
Pb1–O9 2.453(17)	Pb9–O11 2.492(18)	Te5–O15 1.92(2)
Pb1–O32 2.47(2)	Pb9–O32 2.57(2)	Te5–O24 2.77(2)
Pb1–O1 2.85(2)	Pb9–O24 2.70(3)	Te5–O20 2.88(2)
Pb1–O13 2.852(18)	Pb9–O13 2.72(2)	Te5–O21 3.078(19)
Pb1–O7 3.58(2)	Pb9–O7 2.89(2)	<Te5–O> _{short} 1.87
<Pb1–O> 2.70	<Pb9–O> 2.61	<Te5–O> _{long} 2.91
Pb2–O27 2.36(2)	Pb10–O12 2.296(19)	Te6–O16 1.84(2)
Pb2–O30 2.46(2)	Pb10–O3 2.387(18)	Te6–O17 1.86(2)
Pb2–O14 2.516(19)	Pb10–O8 2.466(19)	Te6–O18 1.879(18)
Pb2–O10 2.54(2)	Pb10–O5 2.675(19)	Te6–O19 2.58(2)
Pb2–O22 2.543(18)	Pb10–O34 2.749(18)	Te6–O36 3.12(2)
Pb2–O26 2.778(19)	Pb10–O33 2.936(18)	Te6–O34 3.277(18)
Pb2–O11 3.489(17)	Pb10–O31 3.20(2)	<Te6–O> _{short} 2.04
<Pb2–O> 2.67	Pb10–O37 3.251(15)	<Te6–O> _{long} 3.20
Pb3–O10 2.34(2)	Pb11–O2 2.329(19)	Te7–O19 1.86(2)
Pb3–O15 2.36(2)	Pb11–O28 2.397(17)	Te7–O20 1.89(3)
Pb3–O31 2.45(2)	Pb11–O25 2.47(2)	Te7–O21 1.887(18)
Pb3–O11 2.48(2)	Pb11–O35 2.51(2)	Te7–O25 2.76(2)
Pb3–O27 2.73(2)	Pb11–O19 2.727(19)	Te7–O15 2.82(2)
<Pb3–O> 2.47	Pb11–O5 2.79(2)	Te7–O14 3.24(2)
Pb4–O23 2.37(2)	Pb11–O30 3.49(2)	<Te7–O> _{short} 1.88
Pb4–O7 2.44(2)	Pb11–O37 3.524(15)	<Te7–O> _{long} 2.94
Pb4–O26 2.533(17)	<Pb11–O> 2.78	Te8–O22 1.87(2)
Pb4–O21 2.581(17)	Pb12–O3 2.275(17)	Te8–O23 1.880(19)
Pb4–O17 2.63(2)	Pb12–O9 2.351(18)	Te8–O24 1.92(2)
Pb4–O22 2.74(2)	Pb12–O4 2.46(2)	Te8–O9 2.883(17)
<Pb4–O> 2.55	Pb12–O12 2.57(2)	Te8–O27 2.95(2)
Pb5–O20 2.30(2)	Pb12–O37 2.810(15)	Te8–O7 2.99(2)
Pb5–O17 2.34(2)	Pb12–O8 3.15(2)	<Te8–O> _{short} 1.89
Pb5–O36 2.41(2)	Pb12–O31 3.20(2)	<Te8–O> _{long} 2.94
Pb5–O16 2.48(2)	Pb12–O5 3.44(2)	Te9–O25 1.86(2)
Pb5–O23 2.630(19)	Pb12–O10 3.501(19)	Te9–O26 1.87(2)
Pb5–O29 3.547(19)	<Pb12–O> 2.86	Te9–O27 1.89(2)
<Pb5–O> 2.62	Te1–O1 1.85(2)	Te9–O28 3.061(17)
Pb6–O6 2.30(2)	Te1–O2 1.90(2)	Te9–O30 3.09(2)
Pb6–O28 2.359(18)	Te1–O3 1.912(17)	Te9–O23 3.099(18)
Pb6–O2 2.375(17)	Te1–O5 2.66(2)	<Te9–O> _{short} 1.87
Pb6–O18 2.539(19)	Te1–O29 2.786(19)	<Te9–O> _{long} 3.08
Pb6–O29 3.06(2)	Te1–O35 3.40(2)	Te10–O28 1.863(18)
Pb6–O36 3.24(2)	<Te1–O> _{short} 2.08	Te10–O29 1.875(19)
Pb6–O1 3.33(2)	<Te1–O> _{long} 3.09	Te10–O30 1.89(2)
Pb6–O17 3.39(2)	Te2–O4 1.86(2)	Te10–O26 2.830(18)
<Pb6–O> 2.82	Te2–O5 1.89(2)	Te10–O18 2.930(18)
Pb7–O18 2.314(18)	Te2–O6 1.91(2)	<Te10–O> _{short} 1.88
Pb7–O6 2.45(2)	Te2–O8 2.659(19)	<Te10–O> _{long} 2.880
Pb7–O29 2.478(19)	Te2–O1 2.78(2)	Te11–O31 1.73(2)
Pb7–O33 2.588(19)	Te2–O32 3.16(2)	Te11–O32 1.79(2)
Pb7–O1 2.64(2)	<Te2–O> _{short} 2.08	Te11–O33 1.825(19)
Pb7–O34 2.769(17)	<Te2–O> _{long} 2.97	Te11–O6 3.00(2)
Pb7–O36 3.06(2)	Te3–O7 1.85(2)	Te11–O37 3.275(15)
<Pb7–O> 2.61	Te3–O8 1.871(19)	<Te11/S1–O> _{short} 1.78
Pb8–O14 2.36(2)	Te3–O9 1.913(18)	<Te11–O> _{long} 3.14
Pb8–O16 2.467(18)	Te3–O12 2.708(18)	Te12–O37 1.392(17)
Pb8–O20 2.55(2)	Te3–O22 3.009(18)	Te12–O34 1.46(2)
Pb8–O35 2.63(2)	<Te3–O> _{short} 1.88	Te12–O35 1.63(3)
Pb8–O19 2.71(2)	<Te3–O> _{long} 2.859	Te12–O36 1.73(2)
Pb8–O25 2.77(2)	Te4–O10 1.885(18)	Te12–O3 3.190(18)
Pb8–O30 2.80(2)	Te4–O11 1.90(2)	<S2/Te12–O> _{short} 1.55
<Pb8–O> 2.61	Te4–O12 1.948(19)	<Te12–O> _{long} 3.190
	Te4–O13 2.479(19)	
	Te4–O33 2.863(19)	
	Te4–O31 2.97(2)	
	<Te4–O> _{short} 2.05	
	<Te4–O> _{long} 2.92	