

Table 5. Final atomic fractional coordinates and equivalent isotropic (\AA^2) and anisotropic ($\text{\AA}^2 \times 10^4$) thermal factors.

| Atom | x/a | y/b | z/c | B_{eq} | β_{11}^* | β_{22}^* | β_{33}^* | β_{12}^* | β_{13}^* | β_{23}^* |
|----------------------------|------------|------------|------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sample 1: Tas27-2Ba | | | | | | | | | | |
| O1 | 0.0138(6) | 0.0 | 0.1703(3) | 2.33(7) | 260(10) | 62(4) | 52(3) | 0 | 28(5) | 0 |
| O2 | 0.3285(4) | 0.2286(2) | 0.1703(2) | 2.37(5) | 222(8) | 86(3) | 44(2) | -20(4) | 30(3) | -6(2) |
| O3 | 0.1302(3) | 0.1668(2) | 0.3908(2) | 1.58(4) | 135(6) | 43(2) | 45(2) | 0(3) | 25(2) | -1(2) |
| O4 | 0.1322(5) | 0.5 | 0.3978(3) | 1.60(6) | 137(9) | 50(3) | 42(2) | 0 | 25(4) | 0 |
| T | 0.0761(1) | 0.16662(8) | 0.22825(7) | 1.41(2) | 124(2) | 41(1) | 38(1) | -1(1) | 25(1) | -1(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.87(4) | 157(6) | 52(2) | 54(2) | 0 | 31(3) | 0 |
| M2 | 0.0 | 0.3323(1) | 0.5 | 1.54(3) | 133(4) | 42(1) | 44(1) | 0 | 25(2) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.27(4) | 330(7) | 108(2) | 63(2) | 0 | 34(2) | 0 |
| Sample 2: Tas27-2Bb | | | | | | | | | | |
| O1 | 0.0134(4) | 0.0 | 0.1704(2) | 1.45(4) | 189(7) | 35(2) | 24(1) | 0 | 6(2) | 0 |
| O2 | 0.3281(2) | 0.2284(2) | 0.1703(1) | 1.44(3) | 132(4) | 56(2) | 24(1) | -24(2) | 15(2) | -5(1) |
| O3 | 0.1300(2) | 0.1667(1) | 0.3910(1) | 0.72(2) | 69(3) | 20(1) | 18(1) | 1(2) | 9(1) | -1(1) |
| O4 | 0.1326(3) | 0.5 | 0.3976(2) | 0.78(3) | 69(4) | 24(2) | 18(1) | 0 | 4(2) | 0 |
| T | 0.07606(7) | 0.16669(4) | 0.22828(4) | 0.55(1) | 48(1) | 16(1) | 14(1) | 0(1) | 6(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 0.82(2) | 68(3) | 22(1) | 24(1) | 0 | 11(1) | 0 |
| M2 | 0.0 | 0.33224(8) | 0.5 | 0.71(1) | 55(2) | 19(1) | 21(1) | 0 | 7(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 2.57(2) | 269(4) | 87(1) | 42(1) | 0 | 15(1) | 0 |
| Sample 3: Tag15-4 | | | | | | | | | | |
| O1 | 0.0134(7) | 0.0 | 0.1705(4) | 2.21(9) | 240(10) | 63(5) | 42(4) | 0 | 6(6) | 0 |
| O2 | 0.3285(4) | 0.2281(3) | 0.1700(2) | 2.16(6) | 190(9) | 81(4) | 39(2) | -23(5) | 13(4) | -5(3) |
| O3 | 0.1304(4) | 0.1670(3) | 0.3914(2) | 1.49(5) | 124(7) | 48(3) | 36(2) | -2(5) | 12(3) | -1(3) |
| O4 | 0.1314(6) | 0.5 | 0.3973(3) | 1.40(8) | 130(10) | 43(4) | 32(3) | 0 | 11(5) | 0 |
| T | 0.0755 (1) | 0.1666(1) | 0.22683(8) | 1.22(2) | 107(3) | 38(1) | 29(1) | 2(2) | 10(1) | -1(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.38(4) | 106(6) | 42(2) | 38(2) | 0 | 13(3) | 0 |
| M2 | 0.0 | 0.3334(2) | 0.5 | 1.38(3) | 105(4) | 45(1) | 35(1) | 0 | 9(2) | 0 |
| K | 0.0 | 0.5 | 0.0 | 2.70(4) | 256(7) | 91(2) | 53(2) | 0 | 20(3) | 0 |
| Sample 4: Tag15-3 | | | | | | | | | | |
| O1 | 0.015(1) | 0.0 | 0.1699(5) | 2.7(1) | 310(30) | 65(6) | 59(6) | 0 | 10(10) | 0 |
| O2 | 0.3283(7) | 0.2278(4) | 0.1698(4) | 2.6(1) | 240(20) | 86(5) | 64(4) | -35(8) | 60(10) | -4(4) |
| O3 | 0.1295(6) | 0.1674(3) | 0.3908(3) | 1.95(8) | 190(10) | 59(3) | 43(3) | 7(8) | 19(8) | 1(4) |
| O4 | 0.1308(9) | 0.5 | 0.3966(5) | 1.8(1) | 160(20) | 64(6) | 42(5) | 0 | 30(10) | 0 |
| T | 0.0760(2) | 0.1666(1) | 0.2271(1) | 1.84(3) | 166(5) | 52(1) | 50(1) | 2(4) | 32(3) | 0(2) |
| M1 | 0.0 | 0.0 | 0.5 | 1.70(7) | 150(10) | 46(3) | 50(3) | 0 | 37(7) | 0 |
| M2 | 0.0 | 0.3335(2) | 0.5 | 1.67(4) | 142(7) | 48(2) | 48(2) | 0 | 37(4) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.01(7) | 280(10) | 99(3) | 69(3) | 0 | 56(7) | 0 |

Table 5. Continued

| Atom | x/a | y/b | z/c | B_{eq} | β_{11}^* | β_{22}^* | β_{33}^* | β_{12}^* | β_{13}^* | β_{23}^* |
|---------------------------|------------|------------|------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sample 5: Tpg63-2B | | | | | | | | | | |
| O1 | 0.0160(5) | 0.0 | 0.1704(3) | 2.41(7) | 240(10) | 68(4) | 54(3) | 0 | 12(4) | 0 |
| O2 | 0.3271(3) | 0.2293(2) | 0.1695(2) | 2.34(5) | 194(6) | 89(3) | 46(2) | -22(4) | 20(3) | -4(2) |
| O3 | 0.1311(3) | 0.1671(2) | 0.3910(2) | 1.61(4) | 124(5) | 51(2) | 43(2) | -2(3) | 16(2) | 0(2) |
| O4 | 0.1309(4) | 0.5 | 0.3972(3) | 1.60(6) | 117(8) | 55(3) | 40(3) | 0 | 10(4) | 0 |
| T | 0.0756(1) | 0.16669(8) | 0.22652(7) | 1.50(1) | 113(2) | 48(1) | 40(1) | -1(1) | 14(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.52(3) | 113(4) | 45(1) | 44(1) | 0 | 19(2) | 0 |
| M2 | 0.0 | 0.3335(1) | 0.5 | 1.53(2) | 107(2) | 49(1) | 43(1) | 0 | 13(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.13(4) | 280(5) | 102(2) | 68(2) | 0 | 21(2) | 0 |
| Sample 6: Tae23-1a | | | | | | | | | | |
| O1 | 0.0108(6) | 0.0 | 0.1704(3) | 1.98(7) | 230(10) | 56(3) | 34(2) | 0 | 3(4) | 0 |
| O2 | 0.3296(4) | 0.2276(2) | 0.1704(2) | 2.03(5) | 196(7) | 78(3) | 32(2) | -21(4) | 22(3) | -6(2) |
| O3 | 0.1302(3) | 0.1666(2) | 0.3912(2) | 1.35(4) | 117(6) | 46(2) | 30(1) | 3(3) | 12(2) | -1(2) |
| O4 | 0.1320(5) | 0.5 | 0.3977(2) | 1.41(6) | 115(9) | 47(3) | 34(2) | 0 | 16(4) | 0 |
| T | 0.0760(1) | 0.16675(8) | 0.22819(6) | 1.16(1) | 103(2) | 41(1) | 25(1) | -2(1) | 14(1) | -1(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.36(4) | 113(5) | 45(2) | 33(1) | 0 | 15(2) | 0 |
| M2 | 0.0 | 0.3320(1) | 0.5 | 1.32(2) | 113(3) | 44(1) | 30(1) | 0 | 13(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 2.79(4) | 285(6) | 101(2) | 44(1) | 0 | 17(2) | 0 |
| Sample 7: Tae23-1b | | | | | | | | | | |
| O1 | 0.0112(4) | 0.0 | 0.1706(2) | 2.30(5) | 226(8) | 52(2) | 61(2) | 0 | 5(4) | 0 |
| O2 | 0.3296(3) | 0.2274(2) | 0.1707(2) | 2.30(4) | 176(5) | 72(2) | 62(2) | -23(3) | 18(2) | -6(2) |
| O3 | 0.1300(2) | 0.1668(2) | 0.3910(1) | 1.53(3) | 104(4) | 36(1) | 54(1) | 0(2) | 13(2) | 0(1) |
| O4 | 0.1323(4) | 0.5 | 0.3976(2) | 1.62(5) | 105(6) | 39(2) | 59(2) | 0 | 15(3) | 0 |
| T | 0.07591(9) | 0.16666(6) | 0.22784(6) | 1.41(1) | 88(2) | 32(1) | 53(1) | 1(1) | 11(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.45(3) | 89(3) | 32(1) | 56(1) | 0 | 14(2) | 0 |
| M2 | 0.0 | 0.33253(9) | 0.5 | 1.47(2) | 86(2) | 34(1) | 56(1) | 0 | 10(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.09(3) | 272(4) | 94(2) | 74(1) | 0 | 19(2) | 0 |
| Sample 8: Tae23-1c | | | | | | | | | | |
| O1 | 0.0105(7) | 0.0 | 0.1714(3) | 2.98(8) | 370(20) | 77(4) | 52(3) | 0 | 16(5) | 0 |
| O2 | 0.3286(4) | 0.2275(2) | 0.1708(2) | 2.86(5) | 275(8) | 94(3) | 58(2) | -18(4) | 23(3) | 0(2) |
| O3 | 0.1318(4) | 0.1670(2) | 0.3920(2) | 2.25(5) | 232(7) | 68(2) | 44(2) | 0(4) | 7(3) | -2(2) |
| O4 | 0.1329(5) | 0.5 | 0.3975(3) | 2.73(7) | 270(10) | 84(4) | 57(3) | 0 | 8(5) | 0 |
| T | 0.0760(1) | 0.16654(9) | 0.22763(7) | 1.92(2) | 198(3) | 49(1) | 46(1) | -1(1) | 12(1) | -1(1) |
| M1 | 0.0 | 0.0 | 0.5 | 2.06(4) | 202(6) | 54(2) | 53(2) | 0 | 20(3) | 0 |
| M2 | 0.0 | 0.3320(1) | 0.5 | 2.02(3) | 192(4) | 52(1) | 52(1) | 0 | 12(2) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.51(4) | 376(7) | 107(2) | 67(2) | 0 | 23(3) | 0 |

Table 5. Continued

| Atom | x/a | y/b | z/c | B_{eq} | β_{11}^* | β_{22}^* | β_{33}^* | β_{12}^* | β_{13}^* | β_{23}^* |
|----------------------------|------------|------------|------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sample 9: Tpq16-4A | | | | | | | | | | |
| O1 | 0.0106(5) | 0.0 | 0.1711(2) | 2.43(6) | 280(10) | 72(3) | 39(2) | 0 | 3(4) | 0 |
| O2 | 0.3301(3) | 0.2268(2) | 0.1708(2) | 2.42(4) | 241(6) | 88(2) | 39(1) | -24(3) | 21(2) | -6(2) |
| O3 | 0.1300(2) | 0.1670(2) | 0.3910(1) | 1.36(3) | 122(4) | 41(2) | 32(1) | 0(2) | 11(2) | 0(1) |
| O4 | 0.1327(4) | 0.5 | 0.3980(2) | 1.35(4) | 117(6) | 40(2) | 33(2) | 0 | 12(3) | 0 |
| T | 0.07582(9) | 0.16666(5) | 0.22749(5) | 1.40(1) | 129(2) | 42(1) | 33(1) | 1(1) | 13(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.37(3) | 123(4) | 39(1) | 34(1) | 0 | 12(2) | 0 |
| M2 | 0.0 | 0.3325(1) | 0.5 | 1.34(2) | 118(2) | 38(1) | 35(1) | 0 | 13(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.11(3) | 318(5) | 105(2) | 53(1) | 0 | 20(2) | 0 |
| Sample 10: Tpt17-1 | | | | | | | | | | |
| O1 | 0.0112(4) | 0.0 | 0.1701(2) | 1.50(5) | 186(8) | 37(2) | 26(2) | 0 | -5(3) | 0 |
| O2 | 0.3291(3) | 0.2278(2) | 0.1700(2) | 1.49(3) | 133(4) | 56(2) | 28(1) | -31(2) | 18(2) | -6(1) |
| O3 | 0.1304(2) | 0.1668(2) | 0.3912(1) | 0.78(2) | 68(3) | 24(1) | 19(1) | -2(2) | 6(1) | 0(1) |
| O4 | 0.1324(3) | 0.5 | 0.3980(2) | 0.93(4) | 75(5) | 29(2) | 24(1) | 0 | 6(2) | 0 |
| T | 0.07607(9) | 0.16667(5) | 0.22803(5) | 0.64(1) | 51(1) | 19(1) | 17(1) | 1(1) | 6(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 0.84(2) | 61(3) | 23(1) | 26(1) | 0 | 10(1) | 0 |
| M2 | 0.0 | 0.3326(1) | 0.5 | 0.77(1) | 53(2) | 23(1) | 23(1) | 0 | 5(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 2.42(3) | 237(4) | 82(1) | 43(1) | 0 | 12(1) | 0 |
| Sample 11: Tas22-1a | | | | | | | | | | |
| O1 | 0.000(1) | 0.0 | 0.1717(5) | 3.8(2) | 420(30) | 117(8) | 58(5) | 0 | -30(10) | 0 |
| O2 | 0.3317(7) | 0.2220(4) | 0.1715(3) | 3.7(1) | 360(20) | 122(6) | 73(4) | -15(9) | 36(7) | -4(4) |
| O3 | 0.1281(5) | 0.1677(3) | 0.3909(3) | 1.46(6) | 76(9) | 52(3) | 40(2) | -1(6) | -3(5) | 1(3) |
| O4 | 0.1338(8) | 0.5 | 0.3982(4) | 1.7(1) | 120(20) | 57(5) | 41(4) | 0 | -10(8) | 0 |
| T | 0.0759(2) | 0.1667(1) | 0.22680(9) | 1.61(2) | 109(4) | 56(1) | 39(1) | 3(2) | 5(2) | -1(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.49(7) | 100(10) | 54(3) | 35(3) | 0 | -2(5) | 0 |
| M2 | 0.0 | 0.3325(2) | 0.5 | 1.56(4) | 104(7) | 58(2) | 35(2) | 0 | 2(3) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.70(8) | 340(10) | 126(4) | 73(3) | 0 | 33(5) | 0 |
| Sample 12: Tas22-1b | | | | | | | | | | |
| O1 | 0.0012(8) | 0.0 | 0.1701(4) | 3.3(1) | 350(20) | 89(5) | 68(4) | 0 | 20(6) | 0 |
| O2 | 0.3342(5) | 0.2221(3) | 0.1700(2) | 3.18(7) | 310(10) | 104(4) | 62(2) | -22(5) | 38(4) | -10(2) |
| O3 | 0.1309(3) | 0.1670(2) | 0.3918(2) | 1.44(4) | 124(6) | 34(2) | 45(2) | -2(3) | 26(2) | 0(2) |
| O4 | 0.1330(5) | 0.5 | 0.3977(3) | 1.75(6) | 163(9) | 50(3) | 45(3) | 0 | 30(4) | 0 |
| T | 0.0755(1) | 0.16666(7) | 0.22672(6) | 1.48(1) | 123(2) | 44(1) | 39(1) | -1(1) | 22(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.70(4) | 140(5) | 47(2) | 48(2) | 0 | 26(2) | 0 |
| M2 | 0.0 | 0.3328(1) | 0.5 | 1.47(3) | 121(4) | 41(1) | 42(1) | 0 | 25(2) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.15(4) | 287(6) | 100(2) | 69(2) | 0 | 31(3) | 0 |

Table 5. Continued

| Atom | x/a | y/b | z/c | B_{eq} | β_{11}^* | β_{22}^* | β_{33}^* | β_{12}^* | β_{13}^* | β_{23}^* |
|----------------------------|-----------|------------|------------|----------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sample 13: Tpq16-6B | | | | | | | | | | |
| O1 | 0.0046(6) | 0.0 | 0.1695(3) | 3.14(8) | 340(10) | 83(4) | 64(3) | 0 | 5(5) | 0 |
| O2 | 0.3320(4) | 0.2238(2) | 0.1699(2) | 3.16(6) | 339(9) | 91(3) | 64(2) | -20(4) | 36(3) | -9(2) |
| O3 | 0.1302(3) | 0.1671(2) | 0.3909(2) | 1.57(3) | 152(5) | 30(2) | 49(1) | 0(2) | 22(2) | 1(1) |
| O4 | 0.1327(4) | 0.5 | 0.3978(2) | 1.56(5) | 156(8) | 30(2) | 47(2) | 0 | 22(3) | 0 |
| T | 0.0756(1) | 0.16665(6) | 0.22661(5) | 1.56(1) | 155(2) | 34(1) | 45(1) | 0(1) | 20(1) | 0(1) |
| M1 | 0.0 | 0.0 | 0.5 | 1.60(3) | 157(4) | 32(1) | 49(1) | 0 | 23(2) | 0 |
| M2 | 0.0 | 0.3329(1) | 0.5 | 1.42(2) | 139(3) | 26(1) | 45(1) | 0 | 21(1) | 0 |
| K | 0.0 | 0.5 | 0.0 | 3.07(4) | 314(6) | 84(2) | 68(1) | 0 | 24(2) | 0 |

* $\exp[-(h^2\beta_{11} + \dots + 2hk\beta_{12} + \dots)]$

Labels a, b, c as in Table 4. Standard deviations are given in parentheses.