**Table S1. Atomic coordinates ( x $10^4$) and equivalent isotropic displacement parameters ($A^2$ x $10^3$) for 19. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.**

| | X | y | z | U(eq) |
|---|---|---|---|---|
| Si(1) | 4431(1) | 746(1) | 1941(1) | 54(1) |
| N(21) | 3947(3) | 1425(2) | 5710(2) | 85(1) |
| N(22) | -317(4) | 2062(2) | 4122(2) | 88(1) |
| N(31) | 3369(3) | -950(2) | 5127(2) | 82(1) |
| N(32) | -933(3) | -422(2) | 3713(2) | 79(1) |
| C(1) | 2536(3) | 1490(2) | 3126(2) | 46(1) |
| C(2) | 1979(3) | 1147(2) | 4054(2) | 46(1) |
| C(3) | 1705(3) | 99(2) | 3821(2) | 43(1) |
| C(4) | 2086(3) | -11(2) | 2770(2) | 42(1) |
| C(5) | 922(3) | 524(2) | 2063(2) | 44(1) |
| C(6) | 1209(3) | 1426(2) | 2266(2) | 46(1) |
| C(7) | 3385(3) | 651(2) | 2930(2) | 41(1) |
| C(8) | 324(4) | 2090(3) | 1740(3) | 64(1) |
| C(9) | -865(4) | 1820(3) | 990(3) | 77(1) |
| C(10) | -1149(4) | 922(3) | 799(3) | 76(1) |
| C(11) | -274(4) | 248(3) | 1330(2) | 62(1) |
| C(12) | 3259(3) | 2411(2) | 3309(2) | 68(1) |
| C(13) | 2242(3) | -989(2) | 2516(2) | 62(1) |
| C(14) | 3256(3) | 1116(2) | 730(2) | 76(1) |
| C(15) | 5242(4) | -365(2) | 1797(3) | 90(1) |
| C(16) | 5918(3) | 1579(3) | 2348(3) | 88(1) |
| C(21) | 3093(4) | 1296(2) | 4994(3) | 58(1) |
| C(22) | 675(4) | 1653(3) | 4117(2) | 58(1) |
| C(31) | 2637(3) | -480(2) | 4575(3) | 53(1) |
| C(32) | 205(4) | -177(2) | 3764(2) | 52(1) |

**Table S2. Complete Listing of Bond lengths [Å] and angles [deg] for 19.**

| | | | |
|---|---|---|---|
| Si(1)-C(15) | 1.850(3) | C(32)-C(3)-C(2) | 112.8(3) |
| Si(1)-C(14) | 1.857(3) | C(31)-C(3)-C(4) | 110.8(3) |
| Si(1)-C(16) | 1.859(3) | C(32)-C(3)-C(4) | 111.8(2) |
| Si(1)-C(7) | 1.913(3) | C(2)-C(3)-C(4) | 102.7(2) |
| N(21)-C(21) | 1.133(4) | C(13)-C(4)-C(5) | 116.8(3) |
| N(22)-C(22) | 1.130(4) | C(13)-C(4)-C(7) | 120.9(3) |
| N(31)-C(31) | 1.136(4) | C(5)-C(4)-C(7) | 101.2(2) |
| N(32)-C(32) | 1.135(4) | C(13)-C(4)-C(3) | 111.8(3) |
| C(1)-C(6) | 1.511(4) | C(5)-C(4)-C(3) | 103.8(2) |
| C(1)-C(12) | 1.519(4) | C(7)-C(4)-C(3) | 99.7(2) |
| C(1)-C(7) | 1.547(4) | C(6)-C(5)-C(11) | 121.4(3) |
| C(1)-C(2) | 1.608(4) | C(6)-C(5)-C(4) | 107.3(3) |
| C(2)-C(21) | 1.479(4) | C(11)-C(5)-C(4) | 131.3(3) |
| C(2)-C(22) | 1.481(5) | C(5)-C(6)-C(8) | 121.1(3) |
| C(2)-C(3) | 1.591(4) | C(5)-C(6)-C(1) | 107.9(3) |
| C(3)-C(31) | 1.468(4) | C(8)-C(6)-C(1) | 131.0(3) |
| C(3)-C(32) | 1.479(4) | C(1)-C(7)-C(4) | 95.2(2) |
| C(3)-C(4) | 1.612(4) | C(1)-C(7)-Si(1) | 117.9(2) |
| C(4)-C(13) | 1.505(4) | C(4)-C(7)-Si(1) | 119.6(2) |
| C(4)-C(5) | 1.509(4) | C(6)-C(8)-C(9) | 118.0(3) |
| C(4)-C(7) | 1.554(4) | C(10)-C(9)-C(8) | 120.5(4) |
| C(5)-C(6) | 1.377(4) | C(9)-C(10)-C(11) | 122.1(4) |
| C(5)-C(11) | 1.387(4) | C(5)-C(11)-C(10) | 117.0(3) |
| C(6)-C(8) | 1.379(4) | N(21)-C(21)-C(2) | 178.9(4) |
| C(8)-C(9) | 1.393(4) | N(22)-C(22)-C(2) | 176.4(4) |
| C(9)-C(10) | 1.368(5) | N(31)-C(31)-C(3) | 177.1(4) |
| C(10)-C(11) | 1.388(5) | N(32)-C(32)-C(3) | 177.4(4) |
| C(15)-Si(1)-C(14) | 109.63(17) | | |
| C(15)-Si(1)-C(16) | 108.03(17) | | |
| C(14)-Si(1)-C(16) | 108.70(17) | | |
| C(15)-Si(1)-C(7) | 109.15(15) | | |
| C(14)-Si(1)-C(7) | 111.80(14) | | |
| C(16)-Si(1)-C(7) | 109.46(15) | | |
| C(6)-C(1)-C(12) | 116.3(3) | | |
| C(6)-C(1)-C(7) | 100.5(2) | | |
| C(12)-C(1)-C(7) | 120.7(3) | | |
| C(6)-C(1)-C(2) | 103.5(2) | | |
| C(12)-C(1)-C(2) | 112.3(3) | | |
| C(7)-C(1)-C(2) | 101.0(2) | | |
| C(21)-C(2)-C(22) | 107.5(3) | | |
| C(21)-C(2)-C(3) | 111.7(3) | | |
| C(22)-C(2)-C(3) | 114.0(3) | | |
| C(21)-C(2)-C(1) | 110.7(3) | | |
| C(22)-C(2)-C(1) | 110.6(3) | | |
| C(3)-C(2)-C(1) | 102.3(2) | | |
| C(31)-C(3)-C(32) | 106.3(3) | | |
| C(31)-C(3)-C(2) | 112.5(3) | | |

**Table S3. Anisotropic displacement parameters ($Å^2$ x $10^3$) for 19. The anisotropic displacement factor exponent takes the form: $-2\pi^2$ [ $h^2 a^{*2}$ U11 + ... + 2 h k a* b* U12 ]**

| | U11 | U22 | U33 | U23 | U13 | U12 |
|---|---|---|---|---|---|---|
| Si(1) | 62(1) | 58(1) | 51(1) | 5(1) | 28(1) | 2(1) |
| N(21) | 82(2) | 105(3) | 65(2) | -18(2) | 17(2) | -21(2) |
| N(22) | 92(2) | 94(3) | 86(2) | -1•(2) | 39(2) | 27(2) |
| N(31) | 78(2) | 96(3) | 75(2) | 28(2) | 24(2) | 15(2) |
| N(32) | 60(2) | 86(3) | 97(3) | 4(2) | 28(2) | -15(2) |
| C(1) | 56(2) | 38(2) | 49(2) | -5(2) | 23(2) | -7(2) |
| C(2) | 52(2) | 46(2) | 43(2) | -10(2) | 19(2) | -4(2) |
| C(3) | 45(2) | 45(2) | 42(2) | 5(2) | 18(2) | -3(2) |
| C(4) | 54(2) | 32(2) | 44(2) | -4(2) | 20(2) | -1(2) |
| C(5) | 50(2) | 46(3) | 36(2) | 1(2) | 14(2) | 0(2) |
| C(6) | 56(2) | 45(3) | 43(2) | 5(2) | 24(2) | 8(2) |
| C(7) | 44(2) | 40(2) | 41(2) | 2(2) | 16(1) | -5(2) |
| C(8) | 84(3) | 52(3) | 66(3) | 9(2) | 36(2) | 16(2) |
| C(9) | 78(3) | 96(4) | 61(3) | 31(3) | 27(2) | 38(3) |
| C(10) | 67(3) | 104(4) | 54(3) | 11(3) | 8(2) | 1•(3) |
| C(11) | 64(2) | 64(3) | 57(2) | -1(2) | 15(2) | -8(2) |
| C(12) | 88(2) | 45(3) | 80(3) | -1•(2) | 37(2) | -17(2) |
| C(13) | 78(2) | 49(3) | 67(2) | -7(2) | 31(2) | -7(2) |
| C(14) | 94(3) | 89(3) | 51(2) | 14(2) | 31(2) | 7(2) |
| C(15) | 102(3) | 86(3) | 104(3) | 16(3) | 67(2) | 35(3) |
| C(16) | 76(2) | 113(4) | 87(3) | 4(3) | 45(2) | -24(3) |
| C(21) | 62(2) | 64(3) | 54(2) | -13(2) | 26(2) | -8(2) |
| C(22) | 72(3) | 61(3) | 47(2) | -11(2) | 24(2) | 2(2) |
| C(31) | 52(2) | 60(3) | 52(2) | 7(2) | 22(2) | -2(2) |
| C(32) | 58(2) | 52(3) | 50(2) | 6(2) | 20(2) | -2(2) |

**Table S4. Hydrogen coordinates ( x $10^4$) and isotropic displacement parameters (Å$^2$ x $10^3$) for 19.**

| | x | y | z | U(eq) |
|---|---|---|---|---|
| H(7A) | 4073 | 487 | 3556 | 49 |
| H(8A) | 514 | 2700 | 1882 | 77 |
| H(9A) | -1471 | 2254 | 615 | 92 |
| H(10A) | -1953 | 758 | 298 | 92 |
| H(11A) | -480 | -362 | 1200 | 74 |
| H(12A) | 3565 | 2591 | 2735 | 102 |
| H(12B) | 4081 | 2377 | 3871 | 102 |
| H(12C) | 2587 | 2847 | 3435 | 102 |
| H(13A) | 2467 | -1028 | 1887 | 93 |
| H(13B) | 1354 | -1302 | 2482 | 93 |
| H(13C) | 3004 | -1260 | 3018 | 93 |
| H(14A) | 3816 | 1158 | 254 | 114 |
| H(14B) | 2850 | 1697 | 804 | 114 |
| H(14C) | 2493 | 685 | 506 | 114 |
| H(15A) | 5760 | -322 | 1296 | 135 |
| H(15B) | 4493 | -810 | 1606 | 135 |
| H(15C) | 5893 | -538 | 2415 | 135 |
| H(16A) | 6436 | 1632 | 1848 | 131 |
| H(16B) | 6564 | 1377 | 2956 | 131 |
| H(16C) | 5524 | 2157 | 2450 | 131 |

**Table S5. Atomic coordinates ( x $10^4$) and equivalent isotropic displacement parameters ($A^2$ x $10^3$) for 22. U(eq) is defined as one third of the trace of the orthogonalized Uij tensor.**

| | x | y | z | U(eq) |
|---|---|---|---|---|
| Cr(1) | 2689(1) | 4432(1) | 8836(1) | 58(1) |
| Si(1) | 2108(2) | 888(2) | 6507(2) | 60(1) |
| O(55) | 2048(6) | 5998(6) | 10846(6) | 104(2) |
| O(44) | 927(7) | 6837(6) | 6920(6) | 117(2) |
| O(66) | 5169(7) | 6198(6) | 7600(6) | 96(2) |
| C(1) | 2675(8) | 2744(6) | 6404(7) | 51(2) |
| C(2) | 4213(9) | 2683(7) | 6089(8) | 69(2) |
| C(3) | 4909(8) | 2528(7) | 7168(10) | 66(2) |
| C(3A) | 3869(8) | 2525(6) | 8322(7) | 49(2) |
| C(4) | 4004(10) | 2364(7) | 9715(10) | 76(3) |
| C(5) | 2770(16) | 2365(8) | 10595(9) | 100(4) |
| C(6) | 1443(12) | 2584(9) | 10143(11) | 92(3) |
| C(7A) | 2528(7) | 2733(6) | 7860(7) | 43(2) |
| C(7) | 1327(9) | 2794(7) | 8768(9) | 69(2) |
| C(8) | 191(8) | 852(9) | 6893(10) | 114(3) |
| C(9) | 2639(10) | 686(9) | 4802(9) | 116(3) |
| C(10) | 2967(9) | -590(7) | 7890(9) | 101(3) |
| C(11) | 1844(9) | 4014(7) | 5364(8) | 99(3) |
| C(33) | 6464(8) | 2313(9) | 7266(10) | 113(3) |
| C(44) | 1615(9) | 5893(8) | 7633(8) | 76(2) |
| C(55) | 2292(7) | 5389(8) | 10060(8) | 66(2) |
| C(66) | 4201(9) | 5504(8) | 8077(8) | 64(2) |

**Table S6. Complete Listing of Bond lengths [Å] and angles [deg] for 22.**

| | | | |
|---|---|---|---|
| Cr(1)-C(66) | 1.822(9) | C(6)-Cr(1)-C(7A) | 65.0(3) |
| Cr(1)-C(55) | 1.826(9) | C(4)-Cr(1)-C(7A) | 65.8(3) |
| Cr(1)-C(44) | 1.836(8) | C(7)-Cr(1)-C(7A) | 36.0(2) |
| Cr(1)-C(5) | 2.172(8) | C(3A)-Cr(1)-C(7A) | 36.0(2) |
| Cr(1)-C(6) | 2.205(9) | C(10)-Si(1)-C(8) | 109.9(4) |
| Cr(1)-C(4) | 2.217(6) | C(10)-Si(1)-C(9) | 110.4(4) |
| Cr(1)-C(7) | 2.237(8) | C(8)-Si(1)-C(9) | 109.3(4) |
| Cr(1)-C(3A) | 2.280(7) | C(10)-Si(1)-C(1) | 108.7(3) |
| Cr(1)-C(7A) | 2.293(6) | C(8)-Si(1)-C(1) | 109.8(3) |
| Si(1)-C(10) | 1.831(7) | C(9)-Si(1)-C(1) | 108.6(4) |
| Si(1)-C(8) | 1.847(8) | C(2)-C(1)-C(7A) | 100.9(5) |
| Si(1)-C(9) | 1.853(9) | C(2)-C(1)-C(11) | 116.1(7) |
| Si(1)-C(1) | 1.938(7) | C(7A)-C(1)-C(11) | 115.4(6) |
| O(55)-C(55) | 1.168(8) | C(2)-C(1)-Si(1) | 106.3(4) |
| O(44)-C(44) | 1.154(7) | C(7A)-C(1)-Si(1) | 107.4(4) |
| O(66)-C(66) | 1.170(8) | C(11)-C(1)-Si(1) | 109.8(5) |
| C(1)-C(2) | 1.479(9) | C(3)-C(2)-C(1) | 114.2(7) |
| C(1)-C(7A) | 1.496(8) | C(2)-C(3)-C(3A) | 107.0(7) |
| C(1)-C(11) | 1.540(8) | C(2)-C(3)-C(33) | 128.9(8) |
| C(2)-C(3) | 1.339(10) | C(3A)-C(3)-C(33) | 124.0(8) |
| C(3)-C(3A) | 1.455(10) | C(7A)-C(3A)-C(4) | 119.9(7) |
| C(3)-C(33) | 1.508(10) | C(7A)-C(3A)-C(3) | 108.5(6) |
| C(3A)-C(7A) | 1.413(8) | C(4)-C(3A)-C(3) | 131.6(8) |
| C(3A)-C(4) | 1.419(10) | C(7A)-C(3A)-Cr(1) | 72.5(4) |
| C(4)-C(5) | 1.400(11) | C(4)-C(3A)-Cr(1) | 69.2(4) |
| C(5)-C(6) | 1.395(12) | C(3)-C(3A)-Cr(1) | 130.1(4) |
| C(6)-C(7) | 1.384(11) | C(5)-C(4)-C(3A) | 117.3(8) |
| C(7A)-C(7) | 1.403(9) | C(5)-C(4)-Cr(1) | 69.7(4) |
| C(66)-Cr(1)-C(55) | 88.6(3) | C(3A)-C(4)-Cr(1) | 74.0(4) |
| C(66)-Cr(1)-C(44) | 89.2(3) | C(4)-C(5)-C(6) | 123.1(9) |
| C(55)-Cr(1)-C(44) | 88.1(3) | C(4)-C(5)-Cr(1) | 73.2(4) |
| C(66)-Cr(1)-C(5) | 122.9(5) | C(6)-C(5)-Cr(1) | 72.7(5) |
| C(55)-Cr(1)-C(5) | 89.1(3) | C(7)-C(6)-C(5) | 119.0(9) |
| C(44)-Cr(1)-C(5) | 147.7(5) | C(7)-C(6)-Cr(1) | 73.1(5) |
| C(66)-Cr(1)-C(6) | 159.7(4) | C(5)-C(6)-Cr(1) | 70.1(5) |
| C(55)-Cr(1)-C(6) | 93.7(3) | C(7)-C(7A)-C(3A) | 120.4(6) |
| C(44)-Cr(1)-C(6) | 111.0(4) | C(7)-C(7A)-C(1) | 130.4(7) |
| C(5)-Cr(1)-C(6) | 37.2(3) | C(3A)-C(7A)-C(1) | 109.1(6) |
| C(66)-Cr(1)-C(4) | 92.9(3) | C(7)-C(7A)-Cr(1) | 69.8(4) |
| C(55)-Cr(1)-C(4) | 111.6(3) | C(3A)-C(7A)-Cr(1) | 71.5(4) |
| C(44)-Cr(1)-C(4) | 160.3(3) | C(1)-C(7A)-Cr(1) | 135.0(4) |
| C(5)-Cr(1)-C(4) | 37.2(3) | C(6)-C(7)-C(7A) | 120.2(8) |
| C(6)-Cr(1)-C(4) | 67.5(3) | C(6)-C(7)-Cr(1) | 70.6(5) |
| C(66)-Cr(1)-C(7) | 148.4(3) | C(7A)-C(7)-Cr(1) | 74.1(4) |
| C(55)-Cr(1)-C(7) | 122.8(3) | O(44)-C(44)-Cr(1) | 177.1(7) |
| C(44)-Cr(1)-C(7) | 89.1(3) | O(55)-C(55)-Cr(1) | 179.5(6) |
| C(5)-Cr(1)-C(7) | 65.8(4) | O(66)-C(66)-Cr(1) | 179.3(7) |
| C(6)-Cr(1)-C(7) | 36.3(3) | C(66)-Cr(1)-C(7A) | 112.9(3) |
| C(4)-Cr(1)-C(7) | 78.9(3) | C(55)-Cr(1)-C(7A) | 158.2(3) |
| C(66)-Cr(1)-C(3A) | 89.7(3) | C(44)-Cr(1)-C(7A) | 95.3(3) |
| C(55)-Cr(1)-C(3A) | 148.1(3) | C(5)-Cr(1)-C(7A) | 76.5(3) |
| C(44)-Cr(1)-C(3A) | 123.7(3) | | |
| C(5)-Cr(1)-C(3A) | 65.4(3) | | |
| C(6)-Cr(1)-C(3A) | 77.7(3) | | |
| C(4)-Cr(1)-C(3A) | 36.8(3) | | |
| C(7)-Cr(1)-C(3A) | 65.5(3) | | |

**Table S7. Anisotropic displacement parameters ($Å^2 \times 10^3$) for 22. The anisotropic displacement factor exponent takes the form: $-2\pi^2 [ h^2 a^{*2} U11 + ... + 2 h k a^* b^* U12 ]$**

| | U11 | U22 | U33 | U23 | U13 | U12 |
|---|---|---|---|---|---|---|
| Cr(1) | 72(1) | 53(1) | 51(1) | -21(1) | -13(1) | 6(1) |
| Si(1) | 63(2) | 56(1) | 67(2) | -25(1) | -24(1) | 3(1) |
| O(55) | 107(5) | 130(5) | 113(5) | -92(4) | -14(4) | 7(4) |
| O(44) | 160(6) | 74(4) | 125(5) | -37(4) | -80(5) | 41(4) |
| O(66) | 98(5) | 99(4) | 84(4) | -24(4) | 2(4) | -28(4) |
| C(1) | 60(6) | 51(4) | 41(5) | -18(3) | -22(4) | 14(4) |
| C(2) | 81(7) | 76(5) | 58(5) | -31(4) | 10(5) | -29(5) |
| C(3) | 52(6) | 69(5) | 95(7) | -51(5) | -4(5) | -2(4) |
| C(3A) | 60(6) | 38(4) | 53(5) | -17(3) | -27(4) | 4(3) |
| C(4) | 103(8) | 49(4) | 85(7) | -26(5) | -59(6) | 21(5) |
| C(5) | 190(13) | 58(5) | 39(5) | -9(4) | 11(8) | -11(7) |
| C(6) | 96(8) | 78(6) | 95(9) | -35(6) | 31(7) | -17(6) |
| C(7A) | 46(5) | 41(3) | 43(5) | -22(3) | -2(4) | 5(3) |
| C(7) | 87(7) | 64(5) | 65(6) | -33(4) | -10(5) | 0(4) |
| C(8) | 72(7) | 124(7) | 162(9) | -67(7) | -9(6) | -22(6) |
| C(9) | 144(10) | 131(8) | 112(8) | -84(7) | -11(7) | -30(7) |
| C(10) | 141(9) | 46(4) | 125(7) | -23(5) | -76(6) | 9(5) |
| C(11) | 157(9) | 60(5) | 84(6) | -21(4) | -60(6) | 18(5) |
| C(33) | 57(7) | 137(8) | 182(10) | -101(8) | -10(6) | -7(6) |
| C(44) | 100(7) | 59(5) | 76(6) | -31(4) | -32(5) | 10(5) |
| C(55) | 55(6) | 72(5) | 80(6) | -36(5) | -18(5) | 2(4) |
| C(66) | 72(7) | 55(5) | 63(5) | -21(4) | -7(5) | 4(4) |

**Table S8. Hydrogen coordinates ( x $10^4$) and isotropic displacement parameters ($Å^2$ x $10^3$) for 22.**

| | x | y | z | U(eq) |
|---|---|---|---|---|
| H(2A) | 4657(9) | 2748(7) | 5218(8) | 83 |
| H(4A) | 4918(10) | 2361(7) | 10018(10) | 92 |
| H(5A) | 2844(16) | 2391(8) | 11516(9) | 120 |
| H(6A) | 616(12) | 2741(9) | 10747(11) | 110 |
| H(7A) | 419(9) | 3129(7) | 8394(9) | 83 |
| H(8A) | -253(8) | 1629(9) | 6164(10) | 171 |
| H(8B) | -89(8) | 979(9) | 7766(10) | 171 |
| H(8C) | -83(8) | -72(9) | 6949(10) | 171 |
| H(9A) | 2180(10) | 1467(9) | 4088(9) | 174 |
| H(9B) | 2378(10) | -237(9) | 4843(9) | 174 |
| H(9C) | 3633(10) | 725(9) | 4591(9) | 174 |
| H(10A) | 3962(9) | -564(7) | 7683(9) | 152 |
| H(10B) | 2697(9) | -1516(7) | 7948(9) | 152 |
| H(10C) | 2691(9) | -464(7) | 8765(9) | 152 |
| H(11A) | 862(9) | 3952(7) | 5661(8) | 149 |
| H(11B) | 2031(9) | 3954(7) | 4455(8) | 149 |
| H(11C) | 2119(9) | 4930(7) | 5327(8) | 149 |
| H(33A) | 6645(8) | 2235(9) | 8177(10) | 170 |
| H(33B) | 6906(8) | 3134(9) | 6574(10) | 170 |
| H(33C) | 6830(8) | 1433(9) | 7111(10) | 170 |