

ORGANOMETALLICS

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SI. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $2(\text{sil}, \text{P}(\text{O})(\text{OMe})_2)$.

	x	y	z	U(eq)
Mn	2810(1)	1976(1)	1634(1)	37(1)
C(01)	2123(6)	1244(6)	467(6)	46(1)
C(02)	4363(6)	968(6)	1505(6)	49(2)
C(03)	2205(7)	752(7)	3024(6)	54(2)
O(01)	1710(6)	724(5)	-236(5)	75(2)
O(02)	5359(5)	289(5)	1434(6)	79(2)
C(03)	1921(7)	-64(6)	3889(6)	97(2)
S	1249(1)	3793(1)	1899(1)	39(1)
C(1)	2814(5)	3606(5)	2582(5)	34(1)
C(2)	3889(5)	3729(5)	1564(5)	33(1)
C(3)	3453(5)	3833(5)	368(5)	38(1)
C(4)	2052(5)	4508(5)	301(5)	38(1)
Si	2713(2)	3469(2)	4359(1)	38(1)
O(1)	1119(4)	2965(5)	4612(4)	58(1)
O(2)	4066(4)	2419(5)	4508(4)	55(1)
O(3)	2938(5)	5082(4)	4340(4)	57(1)
C(5)	369(8)	2659(9)	5842(7)	76(2)
C(6)	1321(10)	2365(12)	6782(8)	102(3)
C(7)	4409(8)	1774(8)	5720(6)	72(2)
C(8)	3763(9)	2592(11)	6683(7)	95(3)
C(9)	2939(9)	5565(8)	5493(7)	72(2)
C(10)	2184(13)	4586(10)	6577(8)	107(4)
N	2508(5)	3243(5)	6325(5)	53(1)
P	1874(1)	6352(1)	5(1)	39(1)
O(4)	2290(5)	6688(4)	-1480(4)	59(1)
O(5)	3093(4)	6900(4)	507(4)	54(1)
O(6)	514(4)	6863(4)	485(4)	56(1)
C(11)	2095(9)	8032(7)	-2170(7)	73(2)
C(12)	2920(8)	7527(7)	1585(7)	65(2)

S2. Bond lengths [Å] and angles [deg] for 2(sil, P(O)(OMe)₂).

Mn-C(02)	1.778(7)	Mn-C(03)	1.804(7)
Mn-C(01)	1.821(6)	Mn-C(1)	2.110(5)
Mn-C(2)	2.117(5)	Mn-C(3)	2.166(6)
Mn-S	2.341(2)	C(01)-O(01)	1.144(7)
C(02)-O(02)	1.157(7)	C(03)-C(03)	1.134(8)
S-C(1)	1.792(5)	S-C(4)	1.824(6)
C(1)-C(2)	1.407(7)	C(1)-Si	1.893(5)
C(2)-C(3)	1.409(7)	C(3)-C(4)	1.500(7)
C(4)-P	1.824(6)	Si-O(2)	1.648(4)
Si-O(3)	1.656(5)	Si-O(1)	1.658(4)
Si-N	2.079(5)	O(1)-C(5)	1.414(8)
O(2)-C(7)	1.422(8)	O(3)-C(9)	1.431(7)
C(5)-C(6)	1.461(11)	C(6)-N	1.487(10)
C(7)-C(8)	1.500(11)	C(8)-N	1.427(9)
C(9)-C(10)	1.516(12)	C(10)-N	1.440(10)
P-O(6)	1.462(4)	P-O(5)	1.570(4)
P-O(4)	1.575(5)	O(4)-C(11)	1.426(8)
O(5)-C(12)	1.420(8)		
C(02)-Mn-C(03)	87.9(3)	C(02)-Mn-C(01)	92.5(3)
C(03)-Mn-C(01)	97.8(3)	C(02)-Mn-C(1)	116.0(2)
C(03)-Mn-C(1)	96.1(3)	C(01)-Mn-C(1)	148.7(2)
C(02)-Mn-C(2)	91.6(2)	C(03)-Mn-C(2)	127.4(3)
C(01)-Mn-C(2)	134.8(2)	C(1)-Mn-C(2)	38.9(2)
C(02)-Mn-C(3)	100.1(2)	C(03)-Mn-C(3)	163.1(2)
C(01)-Mn-C(3)	96.7(2)	C(1)-Mn-C(3)	67.0(2)
C(2)-Mn-C(3)	38.4(2)	C(02)-Mn-S	161.7(2)
C(03)-Mn-S	100.1(2)	C(01)-Mn-S	102.6(2)
C(1)-Mn-S	47.2(2)	C(2)-Mn-S	70.4(2)
C(3)-Mn-S	68.2(2)	O(01)-C(01)-Mn	176.7(5)
O(02)-C(02)-Mn	178.6(6)	C(03)-C(03)-Mn	174.8(7)
C(1)-S-C(4)	94.6(2)	C(1)-S-Mn	59.6(2)
C(4)-S-Mn	82.8(2)	C(2)-C(1)-S	106.6(4)
C(2)-C(1)-Si	134.4(4)	S-C(1)-Si	118.7(3)
C(2)-C(1)-Mn	70.8(3)	S-C(1)-Mn	73.2(2)
Si-C(1)-Mn	125.8(3)	C(1)-C(2)-C(3)	113.9(4)
C(1)-C(2)-Mn	70.3(3)	C(3)-C(2)-Mn	72.7(3)
C(2)-C(3)-C(4)	112.9(4)	C(2)-C(3)-Mn	68.9(3)
C(4)-C(3)-Mn	97.1(3)	C(3)-C(4)-P	119.1(4)
C(3)-C(4)-S	98.7(4)	P-C(4)-S	110.7(3)
O(2)-Si-O(3)	116.8(3)	O(2)-Si-O(1)	123.3(3)
O(3)-Si-O(1)	117.8(3)	O(2)-Si-C(1)	95.3(2)
O(3)-Si-C(1)	97.2(2)	O(1)-Si-C(1)	92.1(2)
O(2)-Si-N	85.5(2)	O(3)-Si-N	85.4(2)

O(1)-Si-N	84.8(2)	C(1)-Si-N	176.6(2)
C(5)-O(1)-Si	122.4(4)	C(7)-O(2)-Si	121.7(4)
C(9)-O(3)-Si	121.1(4)	O(1)-C(5)-C(6)	109.3(6)
C(5)-C(6)-N	108.5(7)	O(2)-C(7)-C(8)	108.6(6)
N-C(8)-C(7)	110.1(6)	O(3)-C(9)-C(10)	108.5(6)
N-C(10)-C(9)	107.4(6)	C(8)-N-C(10)	117.1(8)
C(8)-N-C(6)	112.5(7)	C(10)-N-C(6)	111.2(7)
C(8)-N-Si	105.6(4)	C(10)-N-Si	105.1(4)
C(6)-N-Si	103.9(4)	O(6)-P-O(5)	114.6(2)
O(6)-P-O(4)	116.0(3)	O(5)-P-O(4)	102.7(3)
O(6)-P-C(4)	113.1(3)	O(5)-P-C(4)	108.3(2)
O(4)-P-C(4)	100.6(2)	C(11)-O(4)-P	120.4(5)
C(12)-O(5)-P		123.4(4)	

S3. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 2(sil, P(O)(OMe)₂).

	U11	U22	U33	U23	U13	U12
Mn	36(1)	36(1)	41(1)	-12(1)	-2(1)	-4(1)
C(01)	53(4)	32(3)	54(4)	-8(3)	-13(3)	5(3)
C(02)	46(4)	45(3)	57(4)	-9(3)	-10(3)	-6(3)
C(03)	58(4)	49(4)	53(4)	-10(3)	0(3)	-13(3)
O(01)	83(4)	73(3)	86(4)	-45(3)	-37(3)	12(3)
O(02)	56(3)	60(3)	120(5)	-20(3)	-15(3)	21(3)
C(03)	127(5)	68(4)	81(4)	13(3)	8(4)	-36(3)
S	26(1)	48(1)	43(1)	-13(1)	1(1)	-4(1)
C(1)	29(3)	40(3)	37(3)	-12(2)	-6(2)	-5(2)
C(2)	20(2)	39(3)	40(3)	-11(2)	-2(2)	-5(2)
C(3)	33(3)	41(3)	40(3)	-16(2)	4(2)	0(2)
C(4)	34(3)	44(3)	40(3)	-21(2)	-3(2)	-1(2)
Si	37(1)	44(1)	34(1)	-12(1)	-2(1)	-2(1)
O(1)	42(2)	90(3)	44(2)	-19(2)	7(2)	-23(2)
O(2)	51(2)	69(3)	43(2)	-16(2)	-7(2)	17(2)
O(3)	83(3)	45(2)	47(2)	-19(2)	-10(2)	-5(2)
C(5)	61(5)	113(7)	51(4)	-10(4)	7(3)	-28(4)
C(6)	95(7)	153(9)	47(4)	2(5)	13(4)	-29(6)
C(7)	77(5)	83(5)	51(4)	-5(4)	-13(4)	25(4)
C(8)	92(6)	143(8)	51(4)	-27(5)	-27(4)	40(6)
C(9)	94(6)	69(5)	65(5)	-40(4)	-17(4)	0(4)
C(10)	183(11)	97(7)	48(5)	-36(5)	-13(6)	-2(7)
N	55(3)	62(3)	39(3)	-13(2)	-3(2)	7(3)
P	35(1)	38(1)	47(1)	-15(1)	-8(1)	1(1)
O(4)	79(3)	46(2)	49(3)	-6(2)	-6(2)	-4(2)
O(5)	37(2)	59(3)	77(3)	-34(2)	-11(2)	-3(2)
O(6)	36(2)	52(2)	84(3)	-24(2)	-12(2)	9(2)
C(11)	105(6)	44(4)	72(5)	3(3)	-29(4)	-16(4)
C(12)	79(5)	61(4)	66(4)	-21(3)	-28(4)	-11(4)

S4. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for $2(\text{sil}, \text{P}(\text{O})(\text{OMe})_2)$.

	x	y	z	U(eq)
H(2)	4806(5)	3740(5)	1670(5)	39
H(3)	3977(5)	3516(5)	-308(5)	45
H(4)	1614(5)	4171(5)	-321(5)	45
H(5A)	-178(8)	1882(9)	5909(7)	92
H(5B)	-247(8)	3421(9)	5998(7)	92
H(6A)	1634(10)	1420(12)	6894(8)	123
H(6B)	866(10)	2541(12)	7593(8)	123
H(7A)	5397(8)	1709(8)	5700(6)	87
H(7B)	4074(8)	866(8)	5943(6)	87
H(8A)	3586(9)	2006(11)	7509(7)	114
H(8B)	4386(9)	3267(11)	6744(7)	114
H(9A)	2489(9)	6459(8)	5431(7)	86
H(9B)	3875(9)	5627(8)	5645(7)	86
H(10A)	2473(13)	4658(10)	7376(8)	128
H(10B)	1203(13)	4788(10)	6630(8)	128
H(11A)	2400(9)	8057(7)	-3057(7)	88
H(11B)	2614(9)	8636(7)	-1866(7)	88
H(11C)	1139(9)	8306(7)	-2053(7)	88
H(12A)	3794(8)	7783(7)	1722(7)	78
H(12B)	2532(8)	6903(7)	2319(7)	78
H(12C)	2317(8)	8317(7)	1442(7)	78

S5. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for **3(Mn,Ph)**.

	x	y	z	U(eq)
Mn(1)	4385(1)	4497(1)	-3032(1)	41(1)
Mn(2)	2157(1)	3816(1)	-15(1)	41(1)
S(1)	695(2)	4302(1)	-1726(1)	44(1)
C(1)	4485(6)	4162(4)	-4124(4)	42(1)
O(1)	4517(5)	3961(3)	-4833(3)	63(1)
C(2)	5760(7)	3735(6)	-2482(4)	57(2)
O(2)	6610(5)	3213(5)	-2124(4)	92(2)
C(3)	5390(7)	5542(5)	-3090(4)	59(2)
O(3)	6012(6)	6223(4)	-3142(3)	90(2)
C(4)	3803(7)	3390(4)	554(4)	43(2)
O(4)	4852(5)	3128(3)	925(3)	66(1)
C(5)	2657(6)	5071(5)	53(4)	50(2)
O(5)	2994(5)	5874(4)	108(3)	72(1)
C(6)	1687(7)	3863(5)	1007(4)	51(2)
O(6)	1355(5)	3917(4)	1650(3)	74(2)
C(11)	3290(5)	3660(4)	-1775(3)	35(1)
C(12)	2994(6)	3399(4)	-2756(4)	41(1)
C(13)	2349(6)	4057(5)	-3390(4)	51(2)
C(14)	2433(7)	5056(5)	-3216(4)	56(2)
C(15)	3220(7)	5358(4)	-2374(4)	52(2)
C(16)	3834(6)	4676(4)	-1751(4)	43(2)
C(17)	2141(5)	3554(4)	-1360(3)	36(1)
C(18)	1806(5)	2697(4)	-951(3)	39(1)
C(19)	662(6)	2838(5)	-647(4)	53(2)
C(20)	171(6)	3801(5)	-840(4)	53(2)
C(21)	-391(6)	3863(5)	-2763(4)	50(2)
C(22)	-555(7)	2902(6)	-2971(4)	72(2)
C(23)	-1433(9)	2609(8)	-3762(6)	93(3)
C(24)	-2116(9)	3277(9)	-4340(6)	97(3)
C(25)	-1961(9)	4233(9)	-4147(6)	96(3)
C(26)	-1088(7)	4552(6)	-3333(5)	73(2)

S6. Bond lengths [Å] and angles [deg] for 3(Mn,Ph).

Mn(1)-C(2)	1.792(8)	Mn(1)-C(3)	1.792(7)
Mn(1)-C(1)	1.796(6)	Mn(1)-C(14)	2.112(6)
Mn(1)-C(13)	2.121(6)	Mn(1)-C(15)	2.140(6)
Mn(1)-C(12)	2.208(6)	Mn(1)-C(16)	2.235(6)
Mn(2)-C(6)	1.790(6)	Mn(2)-C(5)	1.797(8)
Mn(2)-C(4)	1.798(7)	Mn(2)-C(18)	2.085(5)
Mn(2)-C(19)	2.089(6)	Mn(2)-C(20)	2.116(6)
Mn(2)-C(17)	2.126(5)	Mn(2)-S(1)	2.776(2)
S(1)-C(20)	1.755(6)	S(1)-C(17)	1.780(5)
S(1)-C(21)	1.810(6)	C(1)-O(1)	1.149(7)
C(2)-O(2)	1.158(8)	C(3)-O(3)	1.152(7)
C(4)-O(4)	1.144(7)	C(5)-O(5)	1.154(8)
C(6)-O(6)	1.147(7)	C(11)-C(16)	1.503(8)
C(11)-C(17)	1.508(8)	C(11)-C(12)	1.522(7)
C(12)-C(13)	1.374(8)	C(13)-C(14)	1.398(9)
C(14)-C(15)	1.411(9)	C(15)-C(16)	1.378(8)
C(17)-C(18)	1.427(8)	C(18)-C(19)	1.404(8)
C(19)-C(20)	1.422(9)	C(21)-C(22)	1.361(10)
C(21)-C(26)	1.367(9)	C(22)-C(23)	1.383(10)
C(23)-C(24)	1.348(13)	C(24)-C(25)	1.348(13)
C(25)-C(26)	1.417(11)		
C(2)-Mn(1)-C(3)	95.4(3)	C(2)-Mn(1)-C(1)	93.6(3)
C(3)-Mn(1)-C(1)	88.5(3)	C(2)-Mn(1)-C(14)	152.7(3)
C(3)-Mn(1)-C(14)	104.5(3)	C(1)-Mn(1)-C(14)	105.2(3)
C(2)-Mn(1)-C(13)	124.6(3)	C(3)-Mn(1)-C(13)	140.0(3)
C(1)-Mn(1)-C(13)	89.1(2)	C(14)-Mn(1)-C(13)	38.6(3)
C(2)-Mn(1)-C(15)	124.9(3)	C(3)-Mn(1)-C(15)	89.5(3)
C(1)-Mn(1)-C(15)	141.4(3)	C(14)-Mn(1)-C(15)	38.7(2)
C(13)-Mn(1)-C(15)	68.6(3)	C(2)-Mn(1)-C(12)	89.1(3)
C(3)-Mn(1)-C(12)	167.8(3)	C(1)-Mn(1)-C(12)	102.5(2)
C(14)-Mn(1)-C(12)	67.9(2)	C(13)-Mn(1)-C(12)	37.0(2)
C(15)-Mn(1)-C(12)	78.6(2)	C(2)-Mn(1)-C(16)	89.8(2)
C(3)-Mn(1)-C(16)	104.4(2)	C(1)-Mn(1)-C(16)	166.2(2)
C(14)-Mn(1)-C(16)	67.4(2)	C(13)-Mn(1)-C(16)	78.0(2)
C(15)-Mn(1)-C(16)	36.6(2)	C(12)-Mn(1)-C(16)	64.2(2)
C(6)-Mn(2)-C(5)	93.2(3)	C(6)-Mn(2)-C(4)	91.2(3)
C(5)-Mn(2)-C(4)	93.6(3)	C(6)-Mn(2)-C(18)	127.8(3)
C(5)-Mn(2)-C(18)	138.0(2)	C(4)-Mn(2)-C(18)	94.0(2)
C(6)-Mn(2)-C(19)	95.7(3)	C(5)-Mn(2)-C(19)	144.3(3)
C(4)-Mn(2)-C(19)	120.7(3)	C(18)-Mn(2)-C(19)	39.3(2)
C(6)-Mn(2)-C(20)	95.1(3)	C(5)-Mn(2)-C(20)	105.2(3)
C(4)-Mn(2)-C(20)	159.7(3)	C(18)-Mn(2)-C(20)	66.9(2)
C(19)-Mn(2)-C(20)	39.5(2)	C(6)-Mn(2)-C(17)	162.7(3)

C(5)-Mn(2)-C(17)	98.4(2)	C(4)-Mn(2)-C(17)	100.8(2)
C(18)-Mn(2)-C(17)	39.6(2)	C(19)-Mn(2)-C(17)	67.4(2)
C(20)-Mn(2)-C(17)	69.4(2)	C(6)-Mn(2)-S(1)	129.8(2)
C(5)-Mn(2)-S(1)	84.3(2)	C(4)-Mn(2)-S(1)	139.0(2)
C(18)-Mn(2)-S(1)	63.6(2)	C(19)-Mn(2)-S(1)	63.6(2)
C(20)-Mn(2)-S(1)	39.2(2)	C(17)-Mn(2)-S(1)	39.9(2)
C(20)-S(1)-C(17)	86.2(3)	C(20)-S(1)-C(21)	108.9(3)
C(17)-S(1)-C(21)	111.3(3)	C(20)-S(1)-Mn(2)	49.7(2)
C(17)-S(1)-Mn(2)	50.0(2)	C(21)-S(1)-Mn(2)	146.0(2)
O(1)-C(1)-Mn(1)	178.1(5)	O(2)-C(2)-Mn(1)	177.1(6)
O(3)-C(3)-Mn(1)	178.4(7)	O(4)-C(4)-Mn(2)	179.1(5)
O(5)-C(5)-Mn(2)	178.9(5)	O(6)-C(6)-Mn(2)	177.7(5)
C(16)-C(11)-C(17)	114.4(4)	C(16)-C(11)-C(12)	102.6(4)
C(17)-C(11)-C(12)	116.1(4)	C(13)-C(12)-C(11)	119.8(5)
C(13)-C(12)-Mn(1)	68.1(3)	C(11)-C(12)-Mn(1)	93.9(3)
C(12)-C(13)-C(14)	120.9(6)	C(12)-C(13)-Mn(1)	74.9(3)
C(14)-C(13)-Mn(1)	70.3(4)	C(13)-C(14)-C(15)	117.4(6)
C(13)-C(14)-Mn(1)	71.1(4)	C(15)-C(14)-Mn(1)	71.7(4)
C(16)-C(15)-C(14)	120.0(6)	C(16)-C(15)-Mn(1)	75.4(4)
C(14)-C(15)-Mn(1)	69.5(3)	C(15)-C(16)-C(11)	121.0(5)
C(15)-C(16)-Mn(1)	67.9(3)	C(11)-C(16)-Mn(1)	93.4(3)
C(18)-C(17)-C(11)	125.9(5)	C(18)-C(17)-S(1)	109.6(4)
C(11)-C(17)-S(1)	120.1(4)	C(18)-C(17)-Mn(2)	68.7(3)
C(11)-C(17)-Mn(2)	127.6(4)	S(1)-C(17)-Mn(2)	90.1(2)
C(19)-C(18)-C(17)	111.5(5)	C(19)-C(18)-Mn(2)	70.5(3)
C(17)-C(18)-Mn(2)	71.7(3)	C(18)-C(19)-C(20)	110.1(5)
C(18)-C(19)-Mn(2)	70.2(3)	C(20)-C(19)-Mn(2)	71.3(4)
C(19)-C(20)-S(1)	111.3(5)	C(19)-C(20)-Mn(2)	69.2(4)
S(1)-C(20)-Mn(2)	91.1(3)	C(22)-C(21)-C(26)	120.5(6)
C(22)-C(21)-S(1)	123.0(5)	C(26)-C(21)-S(1)	116.5(6)
C(21)-C(22)-C(23)	120.4(8)	C(24)-C(23)-C(22)	120.1(9)
C(23)-C(24)-C(25)	120.3(8)	C(24)-C(25)-C(26)	120.7(8)
C(21)-C(26)-C(25)	117.9(8)		

S7. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 3(Mn,Ph).

	U11	U22	U33	U23	U13	U12
Mn(1)	40(1)	47(1)	37(1)	-3(1)	14(1)	-7(1)
Mn(2)	43(1)	47(1)	37(1)	2(1)	16(1)	8(1)
S(1)	36(1)	56(1)	38(1)	0(1)	10(1)	11(1)
C(1)	41(4)	43(3)	39(4)	1(3)	6(3)	-10(3)
O(1)	86(4)	69(3)	40(3)	-2(2)	25(2)	-10(3)
C(2)	44(4)	88(5)	49(4)	5(4)	27(3)	2(4)
O(2)	60(4)	139(5)	76(4)	17(4)	19(3)	38(4)
C(3)	70(5)	65(5)	43(4)	-17(3)	17(3)	-22(4)
O(3)	117(5)	87(4)	72(4)	-15(3)	35(3)	-53(4)
C(4)	47(4)	41(3)	42(3)	-3(3)	13(3)	-3(3)
O(4)	46(3)	61(3)	81(3)	0(3)	2(3)	4(2)
C(5)	53(4)	60(5)	38(3)	2(3)	15(3)	17(4)
O(5)	94(4)	50(3)	70(3)	-3(3)	20(3)	3(3)
C(6)	57(4)	56(4)	42(4)	7(3)	15(3)	15(3)
O(6)	91(4)	91(4)	51(3)	10(3)	39(3)	25(3)
C(11)	31(3)	40(3)	34(3)	0(3)	11(2)	6(3)
C(12)	40(3)	45(3)	43(3)	-9(3)	19(3)	-7(3)
C(13)	33(3)	81(5)	38(3)	-5(3)	8(3)	-16(3)
C(14)	57(4)	57(4)	56(4)	13(3)	18(4)	13(4)
C(15)	69(5)	35(3)	59(4)	-6(3)	31(4)	3(3)
C(16)	32(3)	55(4)	40(3)	-6(3)	9(3)	-5(3)
C(17)	35(3)	41(3)	33(3)	-4(3)	12(3)	7(3)
C(18)	37(3)	41(3)	40(3)	-1(3)	10(3)	3(3)
C(19)	45(4)	65(4)	53(4)	-5(3)	21(3)	-14(3)
C(20)	40(4)	74(5)	51(4)	1(3)	22(3)	1(3)
C(21)	29(3)	77(5)	41(3)	-5(3)	7(3)	5(3)
C(22)	66(5)	91(6)	51(4)	-9(4)	3(4)	-14(4)
C(23)	75(6)	114(7)	80(6)	-29(6)	1(5)	-24(6)
C(24)	56(5)	150(10)	70(6)	-29(7)	-8(4)	5(6)
C(25)	70(6)	137(9)	66(6)	7(6)	-5(5)	32(6)
C(26)	66(5)	86(6)	56(4)	0(4)	0(4)	29(4)

S8. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for **3(Mn,Ph)**.

	x	y	z	U(eq)
H(11)	4017(5)	3238(4)	-1448(3)	42
H(12)	3249(6)	2796(4)	-2926(4)	49
H(13)	1851(6)	3835(5)	-3942(4)	61
H(14)	1987(7)	5504(5)	-3638(4)	67
H(15)	3324(7)	6017(4)	-2239(4)	62
H(16)	4598(6)	4846(4)	-1309(4)	51
H(18)	2286(5)	2118(4)	-893(3)	47
H(19)	281(6)	2369(5)	-361(4)	63
H(20)	-359(6)	4125(5)	-536(4)	64
H(22)	-74(7)	2439(6)	-2578(4)	86
H(23)	-1552(9)	1950(8)	-3895(6)	112
H(24)	-2696(9)	3077(9)	-4875(6)	116
H(25)	-2433(9)	4688(9)	-4552(6)	115
H(26)	-993(7)	5210(6)	-3192(5)	87

S9. Atomic coordinates ($\times 10^4$) and equivalent isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 5(Me,*p*-tolyl).

	x	y	z	U(eq)
S	1315(1)	331(2)	3830(1)	56(1)
C(1)	2016(5)	271(7)	5212(5)	63(2)
C(2)	1565(6)	1339(7)	5717(5)	73(2)
C(3)	762(6)	2263(7)	5035(6)	80(2)
C(4)	570(5)	1923(7)	4004(6)	71(2)
C(5)	2478(4)	825(6)	3109(4)	50(1)
C(6)	2547(5)	126(6)	2164(5)	60(2)
C(7)	3420(5)	536(8)	1587(5)	71(2)
C(8)	4211(5)	1616(8)	1944(5)	69(2)
C(9)	4105(5)	2294(8)	2905(5)	77(2)
C(10)	3246(5)	1919(6)	3480(5)	64(2)
C(11)	2875(7)	-864(8)	5583(6)	93(2)
C(12)	5145(6)	2090(10)	1300(6)	105(3)
B	1518(7)	-861(7)	8553(6)	62(2)
F(1)	405(4)	-384(6)	8238(4)	125(2)
F(2)	1729(5)	-954(7)	9633(4)	144(2)
F(3)	2315(6)	32(6)	8287(6)	164(3)
F(4)	1667(5)	-2164(5)	8143(4)	129(2)

S10. Bond lengths [$\text{\AA}$] and angles [deg] for 5(Me,*p*-tolyl).

S-C(4)	1.746(6)	S-C(1)	1.781(6)
S-C(5)	1.788(5)	C(1)-C(2)	1.332(8)
C(1)-C(11)	1.463(9)	C(2)-C(3)	1.430(9)
C(3)-C(4)	1.313(8)	C(5)-C(6)	1.368(8)
C(5)-C(10)	1.373(8)	C(6)-C(7)	1.380(8)
C(7)-C(8)	1.376(9)	C(8)-C(9)	1.387(9)
C(8)-C(12)	1.507(8)	C(9)-C(10)	1.357(8)
B-F(3)	1.318(8)	B-F(1)	1.336(8)
B-F(2)	1.337(8)	B-F(4)	1.344(8)
C(4)-S-C(1)	92.9(3)	C(4)-S-C(5)	105.1(3)
C(1)-S-C(5)	104.7(3)	C(2)-C(1)-C(11)	133.1(6)
C(2)-C(1)-S	107.1(5)	C(11)-C(1)-S	119.7(5)
C(1)-C(2)-C(3)	115.3(6)	C(4)-C(3)-C(2)	115.1(6)
C(3)-C(4)-S	109.1(5)	C(6)-C(5)-C(10)	121.5(5)
C(6)-C(5)-S	118.2(4)	C(10)-C(5)-S	120.3(4)
C(5)-C(6)-C(7)	118.4(6)	C(8)-C(7)-C(6)	121.5(6)
C(7)-C(8)-C(9)	117.9(5)	C(7)-C(8)-C(12)	121.6(6)
C(9)-C(8)-C(12)	120.5(7)	C(10)-C(9)-C(8)	121.6(6)
C(9)-C(10)-C(5)	119.1(6)	F(3)-B-F(1)	111.8(6)
F(3)-B-F(2)	106.7(7)	F(1)-B-F(2)	108.5(6)
F(3)-B-F(4)	109.8(7)	F(1)-B-F(4)	111.4(6)
F(2)-B-F(4)	108.5(6)		

S11. Anisotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 5(Me,*p*-tolyl).

	U11	U22	U33	U23	U13	U12
S	57(1)	49(1)	62(1)	-6(1)	15(1)	-6(1)
C(1)	67(4)	66(4)	57(3)	-1(3)	14(3)	-8(3)
C(2)	74(4)	79(5)	69(4)	-22(4)	26(3)	-16(4)
C(3)	67(4)	68(4)	110(6)	-26(4)	35(4)	-8(4)
C(4)	60(4)	62(4)	93(5)	-5(4)	14(3)	4(3)
C(5)	46(3)	49(3)	52(3)	5(3)	9(2)	5(2)
C(6)	61(3)	55(4)	65(4)	-5(3)	13(3)	3(3)
C(7)	65(4)	90(5)	62(4)	-3(4)	21(3)	12(4)
C(8)	47(3)	95(5)	65(4)	19(4)	8(3)	6(3)
C(9)	55(4)	97(5)	78(4)	2(4)	11(3)	-23(4)
C(10)	63(4)	65(4)	63(4)	-8(3)	11(3)	-8(3)
C(11)	109(6)	89(5)	78(5)	11(4)	12(4)	14(5)
C(12)	62(4)	159(8)	98(5)	24(5)	22(4)	-13(5)
B	72(5)	54(4)	61(4)	6(3)	13(4)	-5(4)
F(1)	96(3)	148(4)	122(4)	-23(3)	-9(3)	47(3)
F(2)	158(5)	187(6)	77(3)	4(3)	-6(3)	-1(4)
F(3)	172(5)	102(4)	246(7)	17(4)	117(5)	-34(4)
F(4)	147(4)	67(3)	164(5)	-33(3)	2(3)	11(3)

S12. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 5(Me,*p*-tolyl).

	x	y	z	U(eq)
H(2)	1758(6)	1474(7)	6460(5)	87
H(3)	402(6)	3047(7)	5302(6)	96
H(4)	110(5)	2447(7)	3455(6)	86
H(6)	2018(5)	-608(6)	1917(5)	72
H(7)	3474(5)	71(8)	943(5)	86
H(9)	4635(5)	3023(8)	3162(5)	92
H(10)	3178(5)	2396(6)	4117(5)	76
H(11A)	2985(7)	-1449(8)	4979(6)	111
H(11B)	2579(7)	-1441(8)	6111(6)	111
H(11C)	3624(7)	-445(8)	5901(6)	111
H(12A)	5609(6)	2850(10)	1676(6)	126
H(12B)	4762(6)	2423(10)	603(6)	126
H(12C)	5657(6)	1298(10)	1211(6)	126

S12. Hydrogen coordinates ($\times 10^4$) and isotropic displacement parameters ($\text{\AA}^2 \times 10^3$) for 5(Me,*p*-tolyl).

	x	y	z	U(eq)
H(2)	1758(6)	1474(7)	6460(5)	87
H(3)	402(6)	3047(7)	5302(6)	96
H(4)	110(5)	2447(7)	3455(6)	86
H(6)	2018(5)	-608(6)	1917(5)	72
H(7)	3474(5)	71(8)	943(5)	86
H(9)	4635(5)	3023(8)	3162(5)	92
H(10)	3178(5)	2396(6)	4117(5)	76
H(11A)	2985(7)	-1449(8)	4979(6)	111
H(11B)	2579(7)	-1441(8)	6111(6)	111
H(11C)	3624(7)	-445(8)	5901(6)	111
H(12A)	5609(6)	2850(10)	1676(6)	126
H(12B)	4762(6)	2423(10)	603(6)	126
H(12C)	5657(6)	1298(10)	1211(6)	126