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Extending Distannoxane Double Ladders Using Rigid Spacers: A double ladder with eight chiral tin atoms - and a twist !

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- SUPPLEMENTARY MATERIAL -

Table S(7)	Anisotropic thermal parameters ($Å^2$) for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ (**11**)
Table S(8)	All bond distances (Å) for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ (**11**)
Table S(9)	All bond angles (°) for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ (**11**)
Table S(10)	Structure factor tables for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ (**11**)

* Table available from the authors
N.B. CIF document is available from edward.tiekink@adelaide.edu.au or chmtert@nus.edu.sg (after July 2nd, 2001)

Table S(1) Fractional atomic coordinates for $[C_{80}H_{168}Cl_8O_4Si_{16}Sn_8]$ (**6**)

Atom	x	y	z	B(eq)[a]
Sn(1)	-0.5310(-)	-0.44643(18)	-0.6425(-)	2.44(6)
Sn(2)	-0.52404(14)	-0.30849(18)	-0.51077(14)	2.36(6)
Sn(3)	-0.52400(15)	-0.17075(19)	-0.66579(15)	2.64(7)
Sn(4)	-0.51648(15)	-0.57937(18)	-0.48333(15)	2.76(7)
Sn(5)	0.00033(15)	-0.15231(18)	-0.50015(14)	2.44(6)
Sn(6)	0.00100(14)	-0.41386(18)	-0.49321(15)	2.46(6)
Sn(7)	-0.00162(16)	-0.26050(19)	-0.64333(15)	2.94(6)
Sn(8)	-0.01564(16)	-0.2975(2)	-0.35402(15)	3.34(7)
Cl(1)	-0.5379(5)	-0.3478(8)	-0.7478(5)	4.9(2)
Cl(2)	-0.5168(5)	-0.4048(8)	-0.4054(5)	4.5(2)
Cl(3)	-0.5160(4)	-0.0563(7)	-0.5787(4)	3.9(2)
Cl(4)	-0.5165(4)	-0.7000(6)	-0.5728(4)	2.34(16)
Cl(5)	-0.0101(7)	-0.0787(13)	-0.5988(7)	10.5(5)
Cl(6)	-0.0089(7)	-0.4936(13)	-0.3887(8)	10.8(4)
Cl(7)	0.0133(4)	-0.4474(7)	-0.6529(4)	3.8(2)
Cl(8)	-0.0107(5)	-0.1051(9)	-0.3477(5)	5.3(3)
Si(1)	-0.4035(4)	-0.5513(7)	-0.6882(4)	2.47(19)
Si(2)	-0.1208(5)	-0.5772(8)	-0.5402(5)	3.1(2)
Si(3)	-0.3900(4)	-0.1892(7)	-0.4329(4)	2.11(18)
Si(4)	-0.1392(4)	-0.0228(7)	-0.5094(4)	2.48(19)
Si(5)	-0.3940(4)	-0.0483(8)	-0.6887(4)	2.8(2)
Si(6)	-0.1316(4)	-0.1850(8)	-0.7496(4)	2.7(2)
Si(7)	-0.3659(5)	-0.6772(8)	-0.4265(5)	3.8(2)
Si(8)	-0.1522(5)	-0.3470(9)	-0.3100(5)	4.2(3)
Si(9)	-0.6811(5)	-0.4980(9)	-0.6874(5)	4.6(3)
Si(10)	-0.6381(5)	-0.2235(9)	-0.4366(5)	3.8(2)
Si(11)	-0.6474(5)	0.0001(8)	-0.7084(5)	3.5(2)
Si(12)	-0.6175(5)	-0.7654(9)	-0.4516(5)	3.8(2)
Si(13)	0.1141(5)	0.0406(8)	-0.4897(5)	3.2(2)
Si(14)	0.1522(5)	-0.4568(9)	-0.4716(5)	4.2(2)
Si(15)	0.0988(5)	-0.2537(9)	-0.7455(5)	4.0(2)
Si(16)	0.0826(5)	-0.2430(8)	-0.2146(5)	3.6(2)
O(1)	-0.5435(9)	-0.2952(15)	-0.6123(9)	2.4(4)
O(2)	-0.5307(7)	-0.4406(12)	-0.5565(7)	0.3(3)
O(3)	0.0096(10)	-0.2800(16)	-0.5512(10)	3.2(5)
O(4)	0.0067(8)	-0.2818(15)	-0.4398(8)	1.9(4)
C(1)	-0.4336(16)	-0.474(3)	-0.6288(16)	3.8(8)
C(2)	-0.4086(11)	-0.471(2)	-0.7638(11)	0.8(5)
C(3)	-0.4379(14)	-0.688(2)	-0.6947(14)	2.5(7)
C(4)	-0.3242(16)	-0.557(3)	-0.6551(16)	4.0(8)

C(5)	-0.2910(18)	-0.654(3)	-0.6505(17)	5.1(9)
C(6)	-0.2276(16)	-0.654(3)	-0.6167(16)	3.6(8)
C(7)	-0.1998(13)	-0.566(2)	-0.5888(13)	2.0(6)
C(8)	-0.2345(15)	-0.477(3)	-0.5944(15)	2.9(7)
C(9)	-0.2908(18)	-0.475(3)	-0.6223(17)	4.5(8)
C(10)	-0.1290(19)	-0.627(3)	-0.4651(19)	5.9(10)
C(11)	-0.0761(16)	-0.671(3)	-0.5795(16)	4.2(8)
C(12)	-0.0849(13)	-0.441(2)	-0.5265(13)	1.9(6)
C(13)	-0.4356(13)	-0.272(2)	-0.4990(13)	1.6(6)
C(14)	-0.4316(15)	-0.073(3)	-0.4212(15)	3.3(7)
C(15)	-0.3685(13)	-0.275(2)	-0.3592(14)	2.3(6)
C(16)	-0.3178(13)	-0.145(2)	-0.4536(13)	2.1(6)
C(17)	-0.2907(15)	-0.195(3)	-0.5001(14)	2.7(7)
C(18)	-0.2400(16)	-0.161(3)	-0.5108(16)	3.7(8)
C(19)	-0.2096(13)	-0.070(2)	-0.4857(13)	2.2(6)
C(20)	-0.2345(18)	-0.021(3)	-0.4439(18)	5.3(9)
C(21)	-0.2911(15)	-0.047(3)	-0.4295(15)	3.2(7)
C(22)	-0.1494(13)	0.031(2)	-0.5902(13)	2.0(6)
C(23)	-0.1036(18)	0.079(3)	-0.4551(17)	5.0(9)
C(24)	-0.0932(16)	-0.140(3)	-0.5004(16)	3.6(8)
C(25)	-0.4351(15)	-0.173(3)	-0.6781(15)	3.0(7)
C(26)	-0.3759(13)	0.030(2)	-0.6160(13)	2.2(6)
C(27)	-0.4403(14)	0.017(3)	-0.7530(14)	2.8(7)
C(28)	-0.3239(15)	-0.088(3)	-0.7133(14)	2.9(7)
C(29)	-0.2896(14)	-0.187(3)	-0.6851(14)	2.7(7)
C(30)	-0.2389(15)	-0.216(3)	-0.7035(15)	3.0(7)
C(31)	-0.2097(13)	-0.149(2)	-0.7373(13)	1.8(6)
C(32)	-0.2366(14)	-0.057(3)	-0.7560(14)	2.4(6)
C(33)	-0.2894(16)	-0.027(3)	-0.7455(15)	3.3(7)
C(34)	-0.1381(16)	-0.259(3)	-0.8196(17)	4.2(8)
C(35)	-0.0851(16)	-0.060(3)	-0.7488(16)	3.9(8)
C(36)	-0.0920(12)	-0.262(2)	-0.6775(11)	0.8(5)
C(37)	-0.4194(17)	-0.562(3)	-0.4402(16)	4.0(8)
C(38)	-0.3499(16)	-0.747(3)	-0.5022(17)	4.3(8)
C(39)	-0.3855(14)	-0.777(3)	-0.3630(15)	3.1(7)
C(40)	-0.3012(16)	-0.591(3)	-0.3963(16)	3.6(8)
C(41)	-0.2790(16)	-0.588(3)	-0.3338(17)	4.3(8)
C(42)	-0.2348(17)	-0.512(3)	-0.3049(17)	4.9(9)
C(43)	-0.2092(13)	-0.441(2)	-0.3415(14)	2.2(6)
C(44)	-0.2338(17)	-0.457(3)	-0.4072(17)	4.4(8)
C(45)	-0.2761(15)	-0.522(3)	-0.4307(15)	2.9(7)
C(46)	-0.1835(17)	-0.231(3)	-0.2812(17)	4.5(8)
C(47)	-0.103(2)	-0.417(3)	-0.241(2)	6.5(10)

C(48)	-0.1139(16)	-0.315(3)	-0.3747(16)	3.8(8)
C(49)	-0.6021(16)	-0.540(3)	-0.6765(16)	4.0(8)
C(50)	-0.698(4)	-0.388(6)	-0.732(4)	16.1(10)
C(51)	-0.7339(17)	-0.600(3)	-0.7305(18)	5.1(9)
C(52)	-0.692(2)	-0.493(4)	-0.606(2)	8.1(11)
C(53)	-0.607(2)	-0.224(4)	-0.509(2)	7.4(10)
C(54)	-0.589(2)	-0.160(4)	-0.362(2)	7.5(10)
C(55)	-0.7053(16)	-0.135(3)	-0.4568(17)	4.2(8)
C(56)	-0.6651(17)	-0.360(3)	-0.4239(17)	4.5(8)
C(57)	-0.5945(15)	-0.111(3)	-0.7277(15)	3.4(7)
C(58)	-0.6005(16)	0.130(3)	-0.6882(16)	4.2(8)
C(59)	-0.7074(15)	0.018(3)	-0.7764(15)	3.7(8)
C(60)	-0.6783(18)	-0.035(3)	-0.6428(18)	5.3(9)
C(61)	-0.5906(17)	-0.623(3)	-0.4472(17)	4.5(8)
C(62)	-0.655(2)	-0.782(4)	-0.522(3)	9.3(11)
C(63)	-0.6598(19)	-0.772(4)	-0.389(2)	6.3(10)
C(64)	-0.567(4)	-0.856(7)	-0.438(4)	17.4(9)
C(65)	0.0815(17)	-0.080(3)	-0.4607(17)	4.7(9)
C(66)	0.0522(18)	0.142(3)	-0.5047(18)	4.8(8)
C(67)	0.1370(14)	0.010(3)	-0.5625(14)	2.9(7)
C(68)	0.178(2)	0.091(4)	-0.419(2)	6.5(10)
C(69)	0.0782(15)	-0.517(3)	-0.4891(15)	3.4(7)
C(70)	0.1656(18)	-0.357(3)	-0.5326(18)	4.9(9)
C(71)	0.206(2)	-0.572(3)	-0.464(2)	6.5(10)
C(72)	0.165(2)	-0.395(4)	-0.393(2)	6.5(10)
C(73)	0.0710(17)	-0.200(3)	-0.6731(17)	4.5(8)
C(74)	0.038(4)	-0.232(7)	-0.807(4)	17.4(8)
C(75)	0.1654(19)	-0.171(3)	-0.7525(19)	5.7(9)
C(76)	0.132(2)	-0.395(4)	-0.726(2)	6.7(10)
C(77)	0.0514(16)	-0.338(3)	-0.2778(16)	4.1(8)
C(78)	0.0221(15)	-0.179(3)	-0.1880(15)	3.3(7)
C(79)	0.1341(17)	-0.144(3)	-0.2406(17)	4.8(9)
C(80)	0.1305(17)	-0.314(3)	-0.1457(18)	4.8(9)
H(1)	-0.4219	-0.5110	-0.5910	4.583
H(2)	-0.4149	-0.4076	-0.6264	4.583
H(3)	-0.4036	-0.5175	-0.7962	0.970
H(4)	-0.3783	-0.4193	-0.7578	0.970
H(5)	-0.4465	-0.4384	-0.7740	0.970
H(6)	-0.4444	-0.7107	-0.7367	3.037
H(7)	-0.4749	-0.6860	-0.6815	3.037
H(8)	-0.4117	-0.7358	-0.6695	3.037
H(9)	-0.3092	-0.7162	-0.6688	5.959
H(10)	-0.2056	-0.7183	-0.6132	4.391

H(11)	-0.2167	-0.4124	-0.5774	3.501
H(12)	-0.3120	-0.4109	-0.6187	5.303
H(13)	-0.1429	-0.6979	-0.4690	6.978
H(14)	-0.1569	-0.5848	-0.4493	6.978
H(15)	-0.0916	-0.6247	-0.4369	6.978
H(16)	-0.0828	-0.6567	-0.6225	5.030
H(17)	-0.0873	-0.7418	-0.5731	5.030
H(18)	-0.0346	-0.6627	-0.5621	5.030
H(19)	-0.0936	-0.4060	-0.5652	2.292
H(20)	-0.1052	-0.4065	-0.4982	2.292
H(21)	-0.4325	-0.2356	-0.5360	1.871
H(22)	-0.4162	-0.3375	-0.4974	1.871
H(23)	-0.4438	-0.0376	-0.4597	4.124
H(24)	-0.4067	-0.0272	-0.3928	4.124
H(25)	-0.4652	-0.0923	-0.4051	4.124
H(26)	-0.3557	-0.3426	-0.3699	2.820
H(27)	-0.4023	-0.2833	-0.3404	2.820
H(28)	-0.3374	-0.2420	-0.3306	2.820
H(29)	-0.3100	-0.2529	-0.5230	3.122
H(30)	-0.2219	-0.2023	-0.5379	4.410
H(31)	-0.2129	0.0352	-0.4210	6.394
H(32)	-0.3108	-0.0015	-0.4059	3.795
H(33)	-0.1394	-0.0219	-0.6171	2.535
H(34)	-0.1242	0.0904	-0.5906	2.535
H(35)	-0.1897	0.0514	-0.6043	2.535
H(36)	-0.0692	0.0516	-0.4291	5.909
H(37)	-0.1309	0.1032	-0.4309	5.909
H(38)	-0.0926	0.1376	-0.4781	5.909
H(39)	-0.0984	-0.1700	-0.4623	4.399
H(40)	-0.1124	-0.1855	-0.5336	4.399
H(41)	-0.4347	-0.2147	-0.7138	3.429
H(42)	-0.4123	-0.2067	-0.6426	3.429
H(43)	-0.3542	0.0923	-0.6233	2.899
H(44)	-0.3515	-0.0102	-0.5844	2.899
H(45)	-0.4111	0.0506	-0.6033	2.899
H(46)	-0.4259	0.0855	-0.7568	3.374
H(47)	-0.4800	0.0197	-0.7460	3.374
H(48)	-0.4400	-0.0224	-0.7897	3.374
H(49)	-0.3041	-0.2274	-0.6550	3.217
H(50)	-0.2231	-0.2844	-0.6930	3.640
H(51)	-0.2163	-0.0096	-0.7778	2.943
H(52)	-0.3054	0.0399	-0.7616	3.948
H(53)	-0.1788	-0.2674	-0.8377	5.019

H(54)	-0.1200	-0.3260	-0.8102	5.019
H(55)	-0.1183	-0.2222	-0.8471	5.019
H(56)	-0.0629	-0.0624	-0.7809	4.621
H(57)	-0.0581	-0.0532	-0.7098	4.621
H(58)	-0.1105	0.0005	-0.7547	4.621
H(59)	-0.1097	-0.2385	-0.6445	0.964
H(60)	-0.1020	-0.3340	-0.6862	0.964
H(61)	-0.4177	-0.5302	-0.4009	4.878
H(62)	-0.4033	-0.5142	-0.4662	4.878
H(63)	-0.3861	-0.7514	-0.5323	5.203
H(64)	-0.3354	-0.8167	-0.4920	5.203
H(65)	-0.3214	-0.7081	-0.5182	5.203
H(66)	-0.4261	-0.7686	-0.3602	3.773
H(67)	-0.3608	-0.7621	-0.3237	3.773
H(68)	-0.3788	-0.8474	-0.3746	3.773
H(69)	-0.2926	-0.6402	-0.3086	5.041
H(70)	-0.2236	-0.5079	-0.2618	5.761
H(71)	-0.2174	-0.4144	-0.4351	5.487
H(72)	-0.2897	-0.5213	-0.4743	3.568
H(73)	-0.1534	-0.1969	-0.2518	5.597
H(74)	-0.2150	-0.2522	-0.2614	5.597
H(75)	-0.1982	-0.1855	-0.3144	5.597
H(76)	-0.0857	-0.4782	-0.2547	7.807
H(77)	-0.1270	-0.4380	-0.2119	7.807
H(78)	-0.0728	-0.3709	-0.2208	7.807
H(79)	-0.1238	-0.3685	-0.4049	4.546
H(80)	-0.1303	-0.2493	-0.3921	4.546
H(81)	-0.5985	-0.5995	-0.6496	4.665
H(82)	-0.5968	-0.5624	-0.7163	4.665
H(83)	-0.6948	-0.3990	-0.7718	18.601
H(84)	-0.6699	-0.3319	-0.7134	18.601
H(85)	-0.7367	-0.3633	-0.7284	18.601
H(86)	-0.7544	-0.5708	-0.7690	6.284
H(87)	-0.7628	-0.6181	-0.7064	6.284
H(88)	-0.7128	-0.6605	-0.7379	6.284
H(89)	-0.6717	-0.4318	-0.5866	9.200
H(90)	-0.6758	-0.5538	-0.5850	9.200
H(91)	-0.7330	-0.4871	-0.6061	9.200
H(92)	-0.6372	-0.2550	-0.5419	8.362
H(93)	-0.6015	-0.1529	-0.5207	8.362
H(94)	-0.5549	-0.2014	-0.3478	8.889
H(95)	-0.6122	-0.1581	-0.3294	8.889
H(96)	-0.5786	-0.0905	-0.3700	8.889

H(97)	-0.6929	-0.0637	-0.4518	5.008
H(98)	-0.7319	-0.1505	-0.4302	5.008
H(99)	-0.7243	-0.1472	-0.4987	5.008
H(100)	-0.7054	-0.3573	-0.4186	5.430
H(101)	-0.6411	-0.3897	-0.3874	5.430
H(102)	-0.6628	-0.4036	-0.4583	5.430
H(103)	-0.6196	-0.1703	-0.7413	3.971
H(104)	-0.5785	-0.0856	-0.7614	3.971
H(105)	-0.5834	0.1485	-0.7227	5.095
H(106)	-0.5695	0.1169	-0.6532	5.095
H(107)	-0.6254	0.1843	-0.6794	5.095
H(108)	-0.7050	0.0868	-0.7927	4.477
H(109)	-0.7448	0.0094	-0.7645	4.477
H(110)	-0.7035	-0.0329	-0.8069	4.477
H(111)	-0.7196	-0.0215	-0.6520	6.399
H(112)	-0.6595	0.0051	-0.6083	6.399
H(113)	-0.6713	-0.1081	-0.6345	6.399
H(114)	-0.6229	-0.5813	-0.4677	5.362
H(115)	-0.5816	-0.6047	-0.4042	5.362
H(116)	-0.6506	-0.7208	-0.5461	10.845
H(117)	-0.6960	-0.7915	-0.5214	10.845
H(118)	-0.6404	-0.8416	-0.5401	10.845
H(119)	-0.7007	-0.7560	-0.4057	7.578
H(120)	-0.6443	-0.7233	-0.3578	7.578
H(121)	-0.6573	-0.8416	-0.3725	7.578
H(122)	-0.5683	-0.8938	-0.4764	20.439
H(123)	-0.5756	-0.9019	-0.4080	20.439
H(124)	-0.5297	-0.8240	-0.4259	20.439
H(125)	0.1103	-0.1336	-0.4594	5.767
H(126)	0.0775	-0.0631	-0.4194	5.767
H(127)	0.0687	0.2109	-0.4980	5.727
H(128)	0.0252	0.1300	-0.4785	5.727
H(129)	0.0316	0.1369	-0.5472	5.727
H(130)	0.1029	0.0072	-0.5955	3.631
H(131)	0.1567	-0.0565	-0.5595	3.631
H(132)	0.1634	0.0630	-0.5716	3.631
H(133)	0.2120	0.0446	-0.4151	7.658
H(134)	0.1639	0.0897	-0.3817	7.658
H(135)	0.1901	0.1599	-0.4273	7.658
H(136)	0.0740	-0.5506	-0.5285	4.202
H(137)	0.0768	-0.5689	-0.4583	4.202
H(138)	0.1786	-0.3932	-0.5652	5.841
H(139)	0.1949	-0.3079	-0.5141	5.841

H(140)	0.1293	-0.3211	-0.5488	5.841
H(141)	0.2039	-0.6032	-0.5039	7.499
H(142)	0.1958	-0.6225	-0.4365	7.499
H(143)	0.2454	-0.5472	-0.4490	7.499
H(144)	0.1808	-0.3253	-0.3950	7.758
H(145)	0.1926	-0.4356	-0.3645	7.758
H(146)	0.1284	-0.3901	-0.3790	7.758
H(147)	0.1036	-0.2072	-0.6391	5.377
H(148)	0.0626	-0.1275	-0.6810	5.377
H(152)	0.1870	-0.2046	-0.7803	7.011
H(153)	0.1910	-0.1636	-0.7132	7.011
H(154)	0.1528	-0.1035	-0.7686	7.011
H(155)	0.1341	-0.4311	-0.7636	8.244
H(156)	0.1078	-0.4333	-0.7040	8.244
H(157)	0.1714	-0.3891	-0.7016	8.244
H(158)	0.0841	-0.3624	-0.2943	4.864
H(159)	0.0358	-0.3958	-0.2578	4.864
H(160)	0.0340	-0.1104	-0.1732	3.909
H(161)	0.0111	-0.2192	-0.1558	3.909
H(162)	-0.0113	-0.1733	-0.2217	3.909
H(163)	0.1536	-0.1754	-0.2706	5.926
H(164)	0.1636	-0.1216	-0.2061	5.926
H(165)	0.1121	-0.0843	-0.2586	5.926
H(166)	0.1488	-0.3741	-0.1603	5.676
H(167)	0.1064	-0.3363	-0.1179	5.676
H(168)	0.1607	-0.2677	-0.1251	5.676
H(149)	0.0358	-0.1780	-0.8288	23.089
H(150)	0.0282	-0.2996	-0.8314	23.089
H(151)	-0.0012	-0.2336	-0.7864	23.089

$$a\,\underline{B}_{eq} = (8\pi^2/3)(\underline{U}_{11}(aa^*)^2 + \underline{U}_{22}(bb^*)^2 + \underline{U}_{33}(cc^*)^2 + 2\underline{U}_{12}aa^*bb^*\cos\gamma + 2\underline{U}_{13}aa^*cc^*\cos\beta + 2\underline{U}_{23}bb^*cc^*\cos\alpha)$$

Table S(2) Anisotropic thermal parameters ($Å^2$) for $[C_{80}H_{168}Cl_8O_4Si_{16}Sn_8]$ **(6)**

Atom	U11	U22	U33	U12	U13	U23
Sn(1)	0.0323(16)	0.0319(17)	0.0299(15)	0.0005(13)	0.0096(12)	0.0023(12)
Sn(2)	0.0342(16)	0.0219(16)	0.0371(16)	0.0042(12)	0.0155(13)	-0.0015(12)
Sn(3)	0.0397(18)	0.0297(17)	0.0317(16)	0.0031(12)	0.0092(13)	0.0036(12)
Sn(4)	0.0443(18)	0.0315(17)	0.0264(16)	-0.0058(14)	0.0004(12)	0.0034(12)
Sn(5)	0.0397(17)	0.0287(15)	0.0245(14)	-0.0023(13)	0.0070(12)	-0.0012(12)
Sn(6)	0.0302(16)	0.0317(16)	0.0333(15)	-0.0037(13)	0.0107(12)	-0.0006(13)
Sn(7)	0.0456(18)	0.0334(16)	0.0337(15)	0.0007(14)	0.0097(13)	-0.0005(13)
Sn(8)	0.0456(17)	0.0444(18)	0.0389(17)	0.0091(14)	0.0133(13)	0.0094(13)

where the anisotropic thermal parameter is given by the expression:

$$T_{aniso} = \exp[-2\pi^2(h^2a^{*2}U_{11} + k^2b^{*2}U_{22} + l^2c^{*2}U_{33} + 2hka^*b^*U_{12} + 2hla^*c^*U_{13} + 2klb^*c^*U_{23})].$$

Table S(3) All bond distances (Å) for $[C_{80}H_{168}Cl_8O_4Si_{16}Sn_8]$ (**6**)

atom	atom	distance	atom	atom	distance
SN1	CL1	2.61(1)	SN6	O3	2.16(2)
SN1	O1	2.07(2)	SN6	O4	2.04(2)
SN1	O2	1.89(2)	SN6	C12	1.99(3)
SN1	C1	2.22(4)	SN6	C69	2.19(4)
SN1	C49	2.03(3)	SN7	CL5	2.53(2)
SN2	CL2	2.60(1)	SN7	CL7	2.410(9)
SN2	O1	2.20(2)	SN7	O3	2.01(2)
SN2	O2	1.94(2)	SN7	C36	2.06(3)
SN2	C13	2.04(3)	SN7	C73	2.06(4)
SN2	C53	2.19(5)	SN8	CL6	2.62(2)
SN3	CL1	2.86(1)	SN8	CL8	2.44(1)
SN3	CL3	2.38(1)	SN8	O4	2.06(2)
SN3	O1	2.07(2)	SN8	C48	2.22(4)
SN3	C25	2.11(4)	SN8	C77	2.10(3)
SN3	C57	2.04(3)	SI1	C1	1.87(4)
SN4	CL2	2.80(1)	SI1	C2	1.93(3)
SN4	CL4	2.495(9)	SI1	C3	1.90(3)
SN4	O2	2.36(2)	SI1	C4	1.82(4)
SN4	C37	2.25(4)	SI2	C7	1.91(3)
SN4	C61	2.09(4)	SI2	C10	1.82(4)
SN5	CL5	2.33(2)	SI2	C11	1.89(4)
SN5	O3	2.01(2)	SI2	C12	1.91(3)
SN5	O4	2.10(2)	SI3	C13	1.92(3)
SN5	C24	2.15(4)	SI3	C14	1.80(4)
SN5	C65	2.10(4)	SI3	C15	1.93(3)
SN6	CL6	2.57(2)	SI3	C16	1.89(3)
SI4	C19	1.89(3)	SI10	C55	1.88(4)
SI4	C22	1.87(3)	SI10	C56	1.88(4)
SI4	C23	1.83(4)	SI11	C57	1.96(4)
SI4	C24	1.81(4)	SI11	C58	1.97(4)

SI5	C25	1.87(4)	SI11	C59	1.83(3)
SI5	C26	1.86(3)	SI11	C60	1.79(4)
SI5	C27	1.79(3)	SI12	C61	1.90(4)
SI5	C28	1.86(4)	SI12	C62	1.63(5)
SI6	C31	1.92(3)	SI12	C63	1.83(5)
SI6	C34	1.79(4)	SI12	C64	1.62(9)
SI6	C35	1.91(4)	SI13	C65	1.87(4)
SI6	C36	1.93(3)	SI13	C66	1.90(4)
SI7	C37	1.89(4)	SI13	C67	1.83(4)
SI7	C38	1.99(4)	SI13	C68	2.02(4)
SI7	C39	2.00(4)	SI14	C69	1.83(4)
SI7	C40	1.86(4)	SI14	C70	1.91(4)
SI8	C43	1.80(3)	SI14	C71	1.90(5)
SI8	C46	1.80(4)	SI14	C72	1.86(5)
SI8	C47	1.93(4)	SI15	C73	1.96(4)
SI8	C48	1.86(4)	SI15	C74	1.76(8)
SI9	C49	1.86(4)	SI15	C75	1.88(4)
SI9	C50	1.71(8)	SI15	C76	1.97(5)
SI9	C51	1.89(4)	SI16	C77	1.87(4)
SI9	C52	1.87(5)	SI16	C78	1.80(4)
SI10	C53	1.87(5)	SI16	C79	1.89(4)
SI10	C54	1.97(5)	SI16	C80	1.91(4)
C4	C5	1.44(5)			
C4	C9	1.40(5)			
C5	C6	1.49(5)			
C6	C7	1.37(4)			
C7	C8	1.38(4)			
C8	C9	1.31(5)			
C16	C17	1.45(5)			
C16	C21	1.43(4)			
C17	C18	1.30(5)			
C18	C19	1.40(5)			

C19	C20	1.34(5)
C20	C21	1.43(6)
C28	C29	1.54(4)
C28	C33	1.40(5)
C29	C30	1.36(5)
C30	C31	1.39(5)
C31	C32	1.34(4)
C32	C33	1.33(5)
C40	C41	1.37(5)
C40	C45	1.36(5)
C41	C42	1.45(5)
C42	C43	1.40(5)
C43	C44	1.46(5)
C44	C45	1.30(5)

Table S(4) All bond angles (°) for $[C_{80}H_{168}Cl_8O_4Si_{16}Sn_8]$ (**6**)

atom	atom	atom	angle	atom	atom	atom	angle
CL1	SN1	O1	81.6(6)	CL3	SN3	C57	104(1)
CL1	SN1	O2	149.0(5)	O1	SN3	C25	113(1)
CL1	SN1	C1	94(1)	O1	SN3	C57	115(1)
CL1	SN1	C49	93(1)	C25	SN3	C57	125(1)
O1	SN1	O2	67.3(7)	CL2	SN4	CL4	165.6(3)
O1	SN1	C1	108(1)	CL2	SN4	O2	79.2(4)
O1	SN1	C49	121(1)	CL2	SN4	C37	78(1)
O2	SN1	C1	94(1)	CL2	SN4	C61	83(1)
O2	SN1	C49	103(1)	CL4	SN4	O2	86.5(4)
C1	SN1	C49	132(1)	CL4	SN4	C37	104(1)
CL2	SN2	O1	155.3(6)	CL4	SN4	C61	105(1)
CL2	SN2	O2	92.4(5)	O2	SN4	C37	102(1)
CL2	SN2	C13	96.3(8)	O2	SN4	C61	116(1)
CL2	SN2	C53	97(1)	C37	SN4	C61	133(1)
O1	SN2	O2	63.9(7)	CL5	SN5	O3	78.7(7)
O1	SN2	C13	96(1)	CL5	SN5	O4	152.1(7)
O1	SN2	C53	89(1)	CL5	SN5	C24	93(1)
O2	SN2	C13	104(1)	CL5	SN5	C65	97(1)
O2	SN2	C53	117(1)	O3	SN5	O4	73.8(8)
C13	SN2	C53	137(1)	O3	SN5	C24	106(1)
CL1	SN3	CL3	165.4(3)	O3	SN5	C65	114(1)
CL1	SN3	O1	75.6(6)	O4	SN5	C24	90(1)
CL1	SN3	C25	84.1(9)	O4	SN5	C65	98(1)
CL1	SN3	C57	84(1)	C24	SN5	C65	141(1)
CL3	SN3	O1	89.8(6)	CL6	SN6	O3	151.2(7)
CL3	SN3	C25	101.0(9)	CL6	SN6	O4	79.2(7)
CL6	SN6	C12	90.2(9)	O4	SN8	C77	119(1)
CL6	SN6	C69	87(1)	C48	SN8	C77	134(1)
O3	SN6	O4	72.0(8)	SN1	CL1	SN3	80.6(3)
O3	SN6	C12	97(1)	SN2	CL2	SN4	80.3(3)

O3	SN6	C69	109(1)	SN5	CL5	SN7	89.7(5)
O4	SN6	C12	107(1)	SN6	CL6	SN8	84.7(5)
O4	SN6	C69	121(1)	C1	SI1	C2	111(1)
C12	SN6	C69	130(1)	C1	SI1	C3	109(2)
CL5	SN7	CL7	162.6(4)	C1	SI1	C4	103(2)
CL5	SN7	O3	74.0(7)	C2	SI1	C3	118(1)
CL5	SN7	C36	90.0(8)	C2	SI1	C4	104(2)
CL5	SN7	C73	85(1)	C3	SI1	C4	111(2)
CL7	SN7	O3	88.6(6)	C7	SI2	C10	106(2)
CL7	SN7	C36	96.2(8)	C7	SI2	C11	109(1)
CL7	SN7	C73	102(1)	C7	SI2	C12	111(1)
O3	SN7	C36	106(1)	C10	SI2	C11	111(2)
O3	SN7	C73	115(1)	C10	SI2	C12	107(2)
C36	SN7	C73	135(1)	C11	SI2	C12	113(2)
CL6	SN8	CL8	163.9(5)	C13	SI3	C14	109(1)
CL6	SN8	O4	77.5(6)	C13	SI3	C15	110(1)
CL6	SN8	C48	88(1)	C13	SI3	C16	110(1)
CL6	SN8	C77	86(1)	C14	SI3	C15	113(1)
CL8	SN8	O4	86.5(6)	C14	SI3	C16	108(2)
CL8	SN8	C48	98(1)	C15	SI3	C16	106(1)
CL8	SN8	C77	101(1)	C19	SI4	C22	115(1)
O4	SN8	C48	104(1)	C19	SI4	C23	110(2)
C19	SI4	C24	103(2)	C46	SI8	C48	112(2)
C22	SI4	C23	109(2)	C47	SI8	C48	115(2)
C22	SI4	C24	111(2)	C49	SI9	C50	114(3)
C23	SI4	C24	109(2)	C49	SI9	C51	112(2)
C25	SI5	C26	112(1)	C49	SI9	C52	102(2)
C25	SI5	C27	105(1)	C50	SI9	C51	103(3)
C25	SI5	C28	107(2)	C50	SI9	C52	118(3)
C26	SI5	C27	115(1)	C51	SI9	C52	108(2)
C26	SI5	C28	110(1)	C53	SI10	C54	118(2)
C27	SI5	C28	108(2)	C53	SI10	C55	103(2)
C31	SI6	C34	109(1)	C53	SI10	C56	109(2)
C31	SI6	C35	110(1)	C54	SI10	C55	105(2)
C31	SI6	C36	108(1)	C54	SI10	C56	114(2)
C34	SI6	C35	113(2)	C55	SI10	C56	108(2)

C34	SI6	C36	113(1)	C57	SI11	C58	109(2)
C35	SI6	C36	104(1)	C57	SI11	C59	108(2)
C37	SI7	C38	116(2)	C57	SI11	C60	111(2)
C37	SI7	C39	112(2)	C58	SI11	C59	112(2)
C37	SI7	C40	93(2)	C58	SI11	C60	108(2)
C38	SI7	C39	114(2)	C59	SI11	C60	110(2)
C38	SI7	C40	107(2)	C61	SI12	C62	106(2)
C39	SI7	C40	114(1)	C61	SI12	C63	103(2)
C43	SI8	C46	112(2)	C61	SI12	C64	117(3)
C43	SI8	C47	105(2)	C62	SI12	C63	117(3)
C43	SI8	C48	105(2)	C62	SI12	C64	108(4)
C46	SI8	C47	108(2)	C63	SI12	C64	107(4)
C65	SI13	C66	106(2)	SN2	O1	SN3	128.0(9)
C65	SI13	C67	109(2)	SN1	O2	SN2	122.4(8)
C65	SI13	C68	106(2)	SN1	O2	SN4	128.7(8)
C66	SI13	C67	109(2)	SN2	O2	SN4	107.6(7)
C66	SI13	C68	109(2)	SN5	O3	SN6	106(1)
C67	SI13	C68	117(2)	SN5	O3	SN7	117(1)
C69	SI14	C70	114(2)	SN6	O3	SN7	133(1)
C69	SI14	C71	105(2)	SN5	O4	SN6	106.9(8)
C69	SI14	C72	110(2)	SN5	O4	SN8	131(1)
C70	SI14	C71	112(2)	SN6	O4	SN8	116.8(9)
C70	SI14	C72	111(2)	SN1	C1	SI1	119(2)
C71	SI14	C72	105(2)	SI1	C4	C5	122(3)
C73	SI15	C74	104(3)	SI1	C4	C9	125(3)
C73	SI15	C75	106(2)	C5	C4	C9	112(3)
C73	SI15	C76	109(2)	C4	C5	C6	119(3)
C74	SI15	C75	112(3)	C5	C6	C7	123(3)
C74	SI15	C76	122(3)	SI2	C7	C6	120(2)
C75	SI15	C76	104(2)	SI2	C7	C8	125(2)
C77	SI16	C78	109(2)	C6	C7	C8	115(3)
C77	SI16	C79	112(2)	C7	C8	C9	124(3)
C77	SI16	C80	111(2)	C4	C9	C8	128(4)
C78	SI16	C79	112(2)	SN6	C12	SI2	125(2)
C78	SI16	C80	108(2)	SN2	C13	SI3	126(2)
C79	SI16	C80	105(2)	SI3	C16	C17	124(2)

SN1	O1	SN2	104.1(8)	SI3	C16	C21	120(2)
SN1	O1	SN3	118(1)	C17	C16	C21	115(3)
C16	C17	C18	121(3)	SI8	C43	C42	124(2)
C17	C18	C19	126(3)	SI8	C43	C44	125(3)
SI4	C19	C18	123(3)	C42	C43	C44	111(3)
SI4	C19	C20	123(3)	C43	C44	C45	126(4)
C18	C19	C20	114(3)	C40	C45	C44	124(3)
C19	C20	C21	125(3)	SN8	C48	SI8	119(2)
C16	C21	C20	117(3)	SN1	C49	SI9	125(2)
SN5	C24	SI4	128(2)	SN2	C53	SI10	120(2)
SN3	C25	SI5	122(2)	SN3	C57	SI11	124(2)
SI5	C28	C29	120(2)	SN4	C61	SI12	121(2)
SI5	C28	C33	127(3)	SN5	C65	SI13	127(2)
C29	C28	C33	111(3)	SN6	C69	SI14	118(2)
C28	C29	C30	120(3)	SN7	C73	SI15	123(2)
C29	C30	C31	122(3)	SN8	C77	SI16	123(2)
SI6	C31	C30	119(2)				
SI6	C31	C32	123(2)				
C30	C31	C32	117(3)				
C31	C32	C33	125(3)				
C28	C33	C32	123(3)				
SN7	C36	SI6	125(1)				
SN4	C37	SI7	123(2)				
SI7	C40	C41	119(3)				
SI7	C40	C45	125(3)				
C41	C40	C45	116(3)				
C40	C41	C42	123(4)				
C41	C42	C43	121(3)				

Table S(6) Fractional atomic coordinates for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ **(11)**

Atom	x	y	z	B(eq)[a]
Sn(1)	0.589681(15)	0.28305(2)	0.365798(11)	2.179(7)
Sn(2)	0.745833(15)	0.16370(2)	0.423180(11)	2.135(7)
Sn(3)	0.638482(16)	0.10280(2)	0.273787(11)	2.470(7)
Sn(4)	0.695651(15)	0.34145(2)	0.516380(11)	2.319(7)
Cl(1)	0.51836(6)	0.22600(9)	0.26181(4)	2.99(3)
Cl(2)	0.81247(6)	0.20928(9)	0.52841(4)	3.03(3)
Cl(3)	0.75202(6)	0.00800(10)	0.30637(5)	3.98(3)
Cl(4)	0.58582(6)	0.44157(8)	0.47973(4)	2.94(3)
Si(1)	0.55813(7)	0.51088(10)	0.29689(5)	3.16(3)
Si(2)	0.91663(7)	0.22078(11)	0.41014(5)	3.24(3)
Si(3)	0.63768(8)	0.17388(12)	0.14026(5)	3.99(4)
Si(4)	0.80286(7)	0.52305(11)	0.59075(5)	3.46(3)
O(1)	0.65331(13)	0.16566(19)	0.35109(10)	2.14(6)
O(2)	0.67330(13)	0.26262(19)	0.44310(10)	2.14(6)
C(1)	0.4966(2)	0.2452(3)	0.39377(16)	2.66(11)
C(2)	0.5094(2)	0.1816(3)	0.44751(17)	2.55(11)
C(3)	0.4459(2)	0.1817(3)	0.47356(16)	2.18(10)
C(4)	0.4107(2)	0.0926(3)	0.48081(16)	2.20(10)
C(5)	0.3530(2)	0.0910(3)	0.50621(16)	2.18(10)
C(6)	0.3305(2)	0.1816(3)	0.52451(17)	2.76(11)
C(7)	0.3643(2)	0.2724(3)	0.51741(18)	2.84(11)
C(8)	0.4213(2)	0.2728(3)	0.49251(17)	2.70(11)
C(9)	0.3175(2)	-0.0103(3)	0.51190(18)	2.92(11)
C(10)	0.2705(2)	-0.0130(3)	0.55355(16)	2.51(10)
C(11)	0.5649(2)	-0.0215(3)	0.26378(17)	2.94(11)
C(12)	0.5304(2)	-0.0359(3)	0.31299(17)	3.23(12)
C(13)	0.4741(2)	-0.1178(3)	0.30527(17)	2.44(11)
C(14)	0.4327(2)	-0.1479(3)	0.25152(16)	2.71(11)
C(15)	0.3805(2)	-0.2219(4)	0.24626(17)	3.05(11)
C(16)	0.3687(2)	-0.2691(3)	0.29356(17)	2.62(11)
C(17)	0.4092(2)	-0.2429(3)	0.34758(16)	2.46(11)
C(18)	0.4615(2)	-0.1667(3)	0.35273(16)	2.42(10)
C(19)	0.3974(2)	-0.2977(3)	0.39883(17)	2.98(11)
C(20)	0.3307(2)	-0.2597(3)	0.41621(17)	2.91(11)
C(21)	0.6272(2)	0.4199(3)	0.33874(16)	2.68(11)
C(22)	0.4712(3)	0.4925(4)	0.3165(2)	4.67(14)
C(23)	0.5469(3)	0.4882(4)	0.22016(18)	4.46(13)
C(24)	0.5916(3)	0.6425(4)	0.3145(2)	4.66(14)
C(25)	0.8171(2)	0.2466(3)	0.38694(16)	2.75(11)

C(26)	0.9328(3)	0.0870(4)	0.4334(2)	5.82(16)
C(27)	0.9596(3)	0.3063(5)	0.4689(2)	6.98(18)
C(28)	0.9543(2)	0.2481(4)	0.34838(19)	3.89(13)
C(29)	0.6725(2)	0.2013(3)	0.21720(17)	3.12(11)
C(30)	0.7057(9)	0.2301(12)	0.1002(7)	9.8(5)
C(30)	0.6611(5)	0.2768(7)	0.0967(4)	11.8(3)
C(31)	0.5402(5)	0.1420(8)	0.1228(4)	3.27(19)
C(31)	0.5408(7)	0.2468(11)	0.1211(6)	8.4(4)
C(32)	0.6851(5)	0.0464(7)	0.1287(4)	14.6(3)
C(32)	0.5818(10)	0.0643(14)	0.1179(8)	13.0(5)
C(33)	0.7700(2)	0.4628(3)	0.51948(17)	3.05(11)
C(34)	0.7245(3)	0.5637(4)	0.61762(19)	4.81(14)
C(35)	0.8579(3)	0.4282(4)	0.6394(2)	6.88(17)
C(36)	0.8566(3)	0.6351(5)	0.5816(2)	6.61(18)
C(37)	0.2937(6)	0.0873(8)	0.3265(5)	10.1(3)
C(38)	0.2717(5)	-0.0094(7)	0.2950(3)	7.8(2)
C(39)	0.2211(5)	-0.0553(7)	0.3042(3)	7.9(2)
C(40)	0.1684(6)	-0.0671(8)	0.3285(5)	10.4(3)
C(41)	0.1729(6)	0.0080(10)	0.3596(5)	11.3(3)
C(42)	0.2096(5)	0.0682(8)	0.3664(4)	7.9(2)
C(43)	0.2536(5)	0.1229(7)	0.3644(4)	8.3(2)
C(44)	0.3188(10)	0.0812(14)	0.3033(8)	5.3(4)
C(45)	0.1847(9)	-0.1436(13)	0.2861(7)	5.1(4)
C(46)	0.1474(7)	0.0658(10)	0.4005(5)	3.1(3)
H(1)	0.4743	0.3069	0.4003	3.190
H(2)	0.4646	0.2084	0.3642	3.190
H(3)	0.5188	0.1135	0.4385	3.065
H(4)	0.5505	0.2080	0.4745	3.065
H(5)	0.4264	0.0304	0.4681	2.635
H(6)	0.2915	0.1820	0.5421	3.311
H(7)	0.3480	0.3345	0.5298	3.412
H(8)	0.4443	0.3352	0.4881	3.243
H(9)	0.2878	-0.0283	0.4756	3.499
H(10)	0.3548	-0.0594	0.5237	3.499
H(11)	0.2249	0.0171	0.5364	3.010
H(12)	0.2938	0.0243	0.5865	3.010
H(13)	0.5272	-0.0106	0.2303	3.530
H(14)	0.5904	-0.0819	0.2598	3.530
H(15)	0.5679	-0.0518	0.3458	3.873
H(16)	0.5083	0.0265	0.3187	3.873
H(17)	0.4408	-0.1171	0.2185	3.251
H(18)	0.3522	-0.2407	0.2097	3.665
H(19)	0.3324	-0.3201	0.2891	3.138

H(20)	0.4893	-0.1477	0.3894	2.903
H(21)	0.3916	-0.3682	0.3904	3.574
H(22)	0.4389	-0.2878	0.4297	3.574
H(23)	0.2903	-0.2638	0.3840	3.486
H(24)	0.3388	-0.1908	0.4276	3.486
H(25)	0.6536	0.4548	0.3717	3.210
H(26)	0.6588	0.4025	0.3159	3.210
H(27)	0.4797	0.4955	0.3565	5.607
H(28)	0.4381	0.5446	0.2996	5.607
H(29)	0.4514	0.4281	0.3033	5.607
H(30)	0.5192	0.4282	0.2091	5.356
H(31)	0.5225	0.5444	0.1992	5.356
H(32)	0.5932	0.4804	0.2130	5.356
H(33)	0.5958	0.6554	0.3535	5.587
H(34)	0.6377	0.6500	0.3070	5.587
H(35)	0.5584	0.6894	0.2921	5.587
H(36)	0.8024	0.2348	0.3472	3.297
H(37)	0.8106	0.3164	0.3943	3.297
H(38)	0.9326	0.0816	0.4722	6.982
H(39)	0.8956	0.0453	0.4111	6.982
H(40)	0.9785	0.0655	0.4289	6.982
H(41)	0.9498	0.2827	0.5029	8.380
H(42)	1.0105	0.3074	0.4732	8.380
H(43)	0.9406	0.3730	0.4608	8.380
H(44)	1.0007	0.2789	0.3613	4.663
H(45)	0.9589	0.1864	0.3294	4.663
H(46)	0.9227	0.2928	0.3230	4.663
H(47)	0.6575	0.2681	0.2236	3.742
H(48)	0.7239	0.1986	0.2261	3.742
H(58)	0.8108	0.4371	0.5084	3.659
H(59)	0.7468	0.5135	0.4934	3.659
H(60)	0.7369	0.5585	0.6578	5.773
H(61)	0.7124	0.6321	0.6068	5.773
H(62)	0.6840	0.5212	0.6020	5.773
H(63)	0.8515	0.4374	0.6764	8.253
H(64)	0.8428	0.3617	0.6264	8.253
H(65)	0.9076	0.4369	0.6404	8.253
H(66)	0.8737	0.6687	0.6170	7.926
H(67)	0.8967	0.6141	0.5680	7.926
H(68)	0.8271	0.6804	0.5551	7.926

$$a\,\underline{B}_{eq} = (8\pi^2/3)(\underline{U}_{11}(aa^*)^2 + \underline{U}_{22}(bb^*)^2 + \underline{U}_{33}(cc^*)^2 + 2\underline{U}_{12}aa^*bb^*\cos\gamma + 2\underline{U}_{13}aa^*cc^*\cos\beta + 2\underline{U}_{23}bb^*cc^*\cos\alpha)$$

Table S(7) Anisotropic thermal parameters ($Å^2$) for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ **(11)**

Atom	U11	U22	U33	U12	U13	U23
Sn(1)	0.02712(17)	0.0288(2)	0.02823(17)	-0.00022(15)	0.00956(13)	0.00166(14)
Sn(2)	0.02685(17)	0.0280(2)	0.02837(17)	-0.00017(15)	0.01091(13)	0.00275(14)
Sn(3)	0.03588(19)	0.0343(2)	0.02657(16)	-0.00636(16)	0.01326(14)	-0.00299(14)
Sn(4)	0.03246(18)	0.0327(2)	0.02509(16)	-0.00611(16)	0.01123(13)	-0.00277(14)
Cl(1)	0.0366(7)	0.0428(8)	0.0322(6)	-0.0000(6)	0.0053(5)	-0.0005(5)
Cl(2)	0.0350(6)	0.0495(8)	0.0307(6)	0.0021(6)	0.0083(5)	0.0018(5)
Cl(3)	0.0483(8)	0.0588(9)	0.0486(7)	0.0114(7)	0.0205(6)	0.0023(6)
Cl(4)	0.0389(7)	0.0325(7)	0.0416(7)	0.0005(6)	0.0127(5)	-0.0006(5)
Si(1)	0.0479(9)	0.0358(9)	0.0378(7)	0.0074(7)	0.0136(6)	0.0086(6)
Si(2)	0.0314(7)	0.0602(10)	0.0329(7)	-0.0063(7)	0.0110(6)	0.0056(7)
Si(3)	0.0633(10)	0.0607(11)	0.0331(8)	-0.0190(9)	0.0224(7)	-0.0050(7)
Si(4)	0.0394(8)	0.0497(10)	0.0406(8)	-0.0154(7)	0.0069(7)	-0.0099(7)
O(1)	0.0258(15)	0.0251(17)	0.0302(15)	0.0001(14)	0.0068(12)	-0.0038(13)
O(2)	0.0253(16)	0.0300(18)	0.0262(15)	0.0016(13)	0.0067(13)	-0.0046(13)
C(1)	0.031(3)	0.043(3)	0.029(3)	0.001(2)	0.012(2)	0.002(2)
C(2)	0.027(2)	0.027(3)	0.045(3)	-0.000(2)	0.013(2)	0.002(2)
C(3)	0.032(3)	0.025(3)	0.026(2)	-0.005(2)	0.008(2)	0.004(2)
C(4)	0.031(3)	0.022(3)	0.031(2)	0.004(2)	0.010(2)	0.000(2)
C(5)	0.028(3)	0.026(3)	0.030(2)	0.001(2)	0.010(2)	0.004(2)
C(6)	0.038(3)	0.035(3)	0.039(3)	0.001(2)	0.021(2)	0.004(2)
C(7)	0.038(3)	0.029(3)	0.044(3)	0.004(2)	0.016(2)	0.001(2)
C(8)	0.037(3)	0.026(3)	0.039(3)	-0.008(2)	0.008(2)	0.003(2)
C(9)	0.037(3)	0.032(3)	0.047(3)	0.001(2)	0.021(2)	0.001(2)
C(10)	0.031(3)	0.029(3)	0.037(3)	0.004(2)	0.013(2)	0.003(2)
C(11)	0.042(3)	0.037(3)	0.038(3)	-0.007(2)	0.019(2)	-0.008(2)
C(12)	0.053(3)	0.042(3)	0.029(3)	-0.010(3)	0.012(2)	0.003(2)
C(13)	0.035(3)	0.025(3)	0.036(3)	-0.003(2)	0.016(2)	-0.005(2)
C(14)	0.040(3)	0.039(3)	0.023(2)	-0.008(2)	0.007(2)	0.004(2)
C(15)	0.037(3)	0.049(3)	0.029(3)	-0.006(3)	0.004(2)	-0.004(2)
C(16)	0.032(3)	0.032(3)	0.036(3)	-0.009(2)	0.010(2)	0.001(2)
C(17)	0.033(3)	0.033(3)	0.030(3)	0.002(2)	0.013(2)	0.004(2)
C(18)	0.031(3)	0.038(3)	0.022(2)	-0.003(2)	0.0054(19)	0.005(2)
C(19)	0.038(3)	0.042(3)	0.037(3)	-0.001(2)	0.017(2)	0.004(2)
C(20)	0.041(3)	0.041(3)	0.030(3)	0.001(2)	0.013(2)	0.003(2)
C(21)	0.036(3)	0.031(3)	0.038(3)	-0.003(2)	0.016(2)	0.001(2)
C(22)	0.054(3)	0.060(4)	0.068(4)	0.023(3)	0.024(3)	0.013(3)
C(23)	0.070(4)	0.053(4)	0.044(3)	0.002(3)	0.009(3)	0.012(3)
C(24)	0.082(4)	0.034(3)	0.058(3)	0.011(3)	0.013(3)	0.006(3)
C(25)	0.042(3)	0.032(3)	0.033(3)	-0.006(2)	0.016(2)	0.002(2)
C(26)	0.048(3)	0.097(5)	0.078(4)	0.021(3)	0.021(3)	0.044(4)

C(27)	0.059(4)	0.166(7)	0.047(3)	-0.046(4)	0.025(3)	-0.028(4)
C(28)	0.046(3)	0.055(4)	0.049(3)	-0.009(3)	0.016(3)	-0.007(3)
C(29)	0.046(3)	0.039(3)	0.038(3)	-0.007(2)	0.019(2)	0.004(2)
C(33)	0.034(3)	0.044(3)	0.042(3)	-0.004(2)	0.017(2)	-0.004(2)
C(34)	0.069(4)	0.066(4)	0.048(3)	-0.014(3)	0.017(3)	-0.017(3)
C(35)	0.087(5)	0.086(5)	0.062(4)	0.009(4)	-0.031(3)	-0.021(3)
C(36)	0.086(5)	0.103(5)	0.074(4)	-0.058(4)	0.043(3)	-0.040(4)

where the anisotropic thermal parameter is given by the expression:

$$T_{aniso} = \exp[-2\pi^2(h^2a^{*2}U_{11} + k^2b^{*2}U_{22} + l^2c^{*2}U_{33} + 2hka^*b^*U_{12} + 2hla^*c^*U_{13} + 2klb^*c^*U_{23})].$$

Table S(8) All bond distances (Å) for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ **(11)**

atom	atom	distance	atom	atom	distance
SN1	CL1	2.661(1)	SN3A	CL3A	2.449(1)
SN1	O1	2.053(3)	SN3A	O1A	2.012(2)
SN1	O2	2.151(2)	SN3A	C11A	2.129(4)
SN1	C1	2.120(5)	SN3A	C29A	2.114(5)
SN1	C21	2.105(4)	SN4	CL2	2.783(1)
SN1A	CL1A	2.661(1)	SN4	CL4	2.442(1)
SN1A	O1A	2.053(3)	SN4	O2	2.016(2)
SN1A	O2A	2.151(2)	SN4	C20A	2.132(4)
SN1A	C1A	2.120(5)	SN4	C33	2.124(4)
SN1A	C21A	2.105(4)	SN4A	CL2A	2.783(1)
SN2	CL2	2.625(1)	SN4A	CL4A	2.442(1)
SN2	O1	2.148(2)	SN4A	O2A	2.016(2)
SN2	O2	2.048(3)	SN4A	C20	2.132(4)
SN2	C10A	2.107(4)	SN4A	C33A	2.124(4)
SN2	C25	2.108(5)	SI1	C21	1.876(4)
SN2A	CL2A	2.625(1)	SI1A	C21A	1.876(4)
SN2A	O1A	2.148(2)	SI2	C25	1.868(4)
SN2A	O2A	2.048(3)	SI2A	C25A	1.868(4)
SN2A	C10	2.107(4)	SI3	C29	1.859(4)
SN2A	C25A	2.108(5)	SI3A	C29A	1.859(4)
SN3	CL1	2.761(1)	SI4	C33	1.867(4)
SN3	CL3	2.449(1)	SI4A	C33A	1.867(4)
SN3	O1	2.012(2)	C1	C2	1.522(6)
SN3	C11	2.129(4)	C1A	C2A	1.522(6)
SN3	C29	2.114(5)	C2	C3	1.508(6)
SN3A	CL1A	2.761(1)	C2A	C3A	1.508(6)
C3	C4	1.384(6)	C15	C16	1.380(6)
C3	C8	1.408(6)	C15A	C16A	1.380(6)
C3A	C4A	1.384(6)	C16	C17	1.389(5)
C3A	C8A	1.408(6)	C16A	C17A	1.389(5)

C4	C5	1.397(6)	C17	C18	1.397(6)
C4A	C5A	1.397(6)	C17	C19	1.510(6)
C5	C6	1.381(6)	C17A	C18A	1.397(6)
C5	C9	1.517(6)	C17A	C19A	1.510(6)
C5A	C6A	1.381(6)	C19	C20	1.528(7)
C5A	C9A	1.517(6)	C19A	C20A	1.528(7)
C6	C7	1.390(6)			
C6A	C7A	1.390(6)			
C7	C8	1.377(7)			
C7A	C8A	1.377(7)			
C9	C10	1.520(7)			
C9A	C10A	1.520(7)			
C11	C12	1.523(7)			
C11A	C12A	1.523(7)			
C12	C13	1.499(6)			
C12A	C13A	1.499(6)			
C13	C14	1.403(5)			
C13	C18	1.400(6)			
C13A	C14A	1.403(5)			
C13A	C18A	1.400(6)			
C14	C15	1.375(6)			
C14A	C15A	1.375(6)			

Table S(9) All bond angles (°) for $[C_{79}H_{144}Cl_8O_4Si_8Sn_8]$ (**11**)

atom	atom	atom	angle	atom	atom	atom	angle
CL1	SN1	O1	78.54(7)	O1	SN2	C25	97.7(1)
CL1	SN1	O2	152.02(7)	O2	SN2	C10A	112.2(1)
CL1	SN1	C1	88.6(1)	O2	SN2	C25	108.7(1)
CL1	SN1	C21	94.2(1)	C10A	SN2	C25	139.1(2)
O1	SN1	O2	73.79(9)	CL2A	SN2A	O1A	152.57(8)
O1	SN1	C1	117.5(1)	CL2A	SN2A	O2A	79.00(6)
O1	SN1	C21	108.9(1)	CL2A	SN2A	C10	91.1(1)
O2	SN1	C1	100.5(1)	CL2A	SN2A	C25A	95.2(1)
O2	SN1	C21	98.4(1)	O1A	SN2A	O2A	73.94(9)
C1	SN1	C21	133.0(2)	O1A	SN2A	C10	94.8(1)
CL1A	SN1A	O1A	78.54(7)	O1A	SN2A	C25A	97.7(1)
CL1A	SN1A	O2A	152.02(7)	O2A	SN2A	C10	112.2(1)
CL1A	SN1A	C1A	88.6(1)	O2A	SN2A	C25A	108.7(1)
CL1A	SN1A	C21A	94.2(1)	C10	SN2A	C25A	139.1(2)
O1A	SN1A	O2A	73.79(9)	CL1	SN3	CL3	167.06(4)
O1A	SN1A	C1A	117.5(1)	CL1	SN3	O1	76.72(7)
O1A	SN1A	C21A	108.9(1)	CL1	SN3	C11	86.2(1)
O2A	SN1A	C1A	100.5(1)	CL1	SN3	C29	87.6(1)
O2A	SN1A	C21A	98.4(1)	CL3	SN3	O1	90.34(7)
C1A	SN1A	C21A	133.0(2)	CL3	SN3	C11	98.6(1)
CL2	SN2	O1	152.57(8)	CL3	SN3	C29	97.4(1)
CL2	SN2	O2	79.00(6)	O1	SN3	C11	110.6(1)
CL2	SN2	C10A	91.1(1)	O1	SN3	C29	111.6(1)
CL2	SN2	C25	95.2(1)	C11	SN3	C29	134.5(2)
O1	SN2	O2	73.94(9)	CL1A	SN3A	CL3A	167.06(4)
O1	SN2	C10A	94.8(1)	CL1A	SN3A	O1A	76.72(7)
CL1A	SN3A	C11A	86.2(1)	O2A	SN4A	C33A	113.9(1)
CL1A	SN3A	C29A	87.6(1)	C20	SN4A	C33A	129.8(2)
CL3A	SN3A	O1A	90.34(7)	SN1	CL1	SN3	81.83(3)
CL3A	SN3A	C11A	98.6(1)	SN1A	CL1A	SN3A	81.83(3)

CL3A	SN3A	C29A	97.4(1)	SN2	CL2	SN4	82.33(3)
O1A	SN3A	C11A	110.6(1)	SN2A	CL2A	SN4A	82.33(3)
O1A	SN3A	C29A	111.6(1)	SN1	O1	SN2	105.3(1)
C11A	SN3A	C29A	134.5(2)	SN1	O1	SN3	121.8(1)
CL2	SN4	CL4	164.69(3)	SN2	O1	SN3	130.6(1)
CL2	SN4	O2	75.68(7)	SN1A	O1A	SN2A	105.3(1)
CL2	SN4	C20A	86.9(1)	SN1A	O1A	SN3A	121.8(1)
CL2	SN4	C33	87.5(1)	SN2A	O1A	SN3A	130.6(1)
CL4	SN4	O2	89.26(7)	SN1	O2	SN2	105.4(1)
CL4	SN4	C20A	101.8(1)	SN1	O2	SN4	130.8(1)
CL4	SN4	C33	96.3(1)	SN2	O2	SN4	122.4(1)
O2	SN4	C20A	112.8(1)	SN1A	O2A	SN2A	105.4(1)
O2	SN4	C33	113.9(1)	SN1A	O2A	SN4A	130.8(1)
C20A	SN4	C33	129.8(2)	SN2A	O2A	SN4A	122.4(1)
CL2A	SN4A	CL4A	164.69(3)	SN1	C1	C2	116.4(3)
CL2A	SN4A	O2A	75.68(7)	SN1A	C1A	C2A	116.4(3)
CL2A	SN4A	C20	86.9(1)	C1	C2	C3	113.3(3)
CL2A	SN4A	C33A	87.5(1)	C1A	C2A	C3A	113.3(3)
CL4A	SN4A	O2A	89.26(7)	C2	C3	C4	121.5(4)
CL4A	SN4A	C20	101.8(1)	C2	C3	C8	120.8(4)
CL4A	SN4A	C33A	96.3(1)	C4	C3	C8	117.7(4)
O2A	SN4A	C20	112.8(1)	C2A	C3A	C4A	121.5(4)
C2A	C3A	C8A	120.8(4)	C14	C13	C18	117.9(4)
C4A	C3A	C8A	117.7(4)	C12A	C13A	C14A	122.3(4)
C3	C4	C5	122.3(4)	C12A	C13A	C18A	119.8(3)
C3A	C4A	C5A	122.3(4)	C14A	C13A	C18A	117.9(4)
C4	C5	C6	118.5(4)	C13	C14	C15	120.5(4)
C4	C5	C9	118.5(4)	C13A	C14A	C15A	120.5(4)
C6	C5	C9	123.0(4)	C14	C15	C16	120.8(4)
C4A	C5A	C6A	118.5(4)	C14A	C15A	C16A	120.8(4)
C4A	C5A	C9A	118.5(4)	C15	C16	C17	120.8(4)
C6A	C5A	C9A	123.0(4)	C15A	C16A	C17A	120.8(4)

C5	C6	C7	120.6(4)	C16	C17	C18	118.2(4)
C5A	C6A	C7A	120.6(4)	C16	C17	C19	120.2(4)
C6	C7	C8	120.3(4)	C18	C17	C19	121.6(3)
C6A	C7A	C8A	120.3(4)	C16A	C17A	C18A	118.2(4)
C3	C8	C7	120.7(4)	C16A	C17A	C19A	120.2(4)
C3A	C8A	C7A	120.7(4)	C18A	C17A	C19A	121.6(3)
C5	C9	C10	115.9(4)	C13	C18	C17	121.8(3)
C5A	C9A	C10A	115.9(4)	C13A	C18A	C17A	121.8(3)
SN2A	C10	C9	110.9(3)	C17	C19	C20	112.8(3)
SN2	C10A	C9A	110.9(3)	C17A	C19A	C20A	112.8(3)
SN3	C11	C12	114.3(3)	SN4A	C20	C19	115.4(3)
SN3A	C11A	C12A	114.3(3)	SN4	C20A	C19A	115.4(3)
C11	C12	C13	115.6(3)	SN1	C21	SI1	118.0(2)
C11A	C12A	C13A	115.6(3)	SN1A	C21A	SI1A	118.0(2)
C12	C13	C14	122.3(4)	SN2	C25	SI2	119.6(2)
C12	C13	C18	119.8(3)	SN2A	C25A	SI2A	119.6(2)
SN3	C29	SI3	116.8(2)				
SN3A	C29A	SI3A	116.8(2)				
SN4	C33	SI4	114.4(2)				
SN4A	C33A	SI4A	114.4(2)				