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Synthesis and Characterization of $[Cd_8Cl_2Se(SePh)_{12}(PCy_3)_2]\cdot 2.5CH_3OH$

Rafael Stieler,[a] Fabrício Bublitz,[a] Robert A. Burrow,[a] Gelson N. Manzoni de Oliveira,[a] Marcos A. Villetti,[b] Marcelo B. Pereira,[c] Paulo Piquini[b] and Ernesto S. Lang*[,a]

[a]Departamento de Química and [b]Departamento de Física, Universidade Federal de Santa Maria, 97105-900 Santa Maria-RS, Brazil

[c]Instituto de Física, Universidade Federal do Rio Grande do Sul, 91501-970, Porto Alegre-RS, Brazil

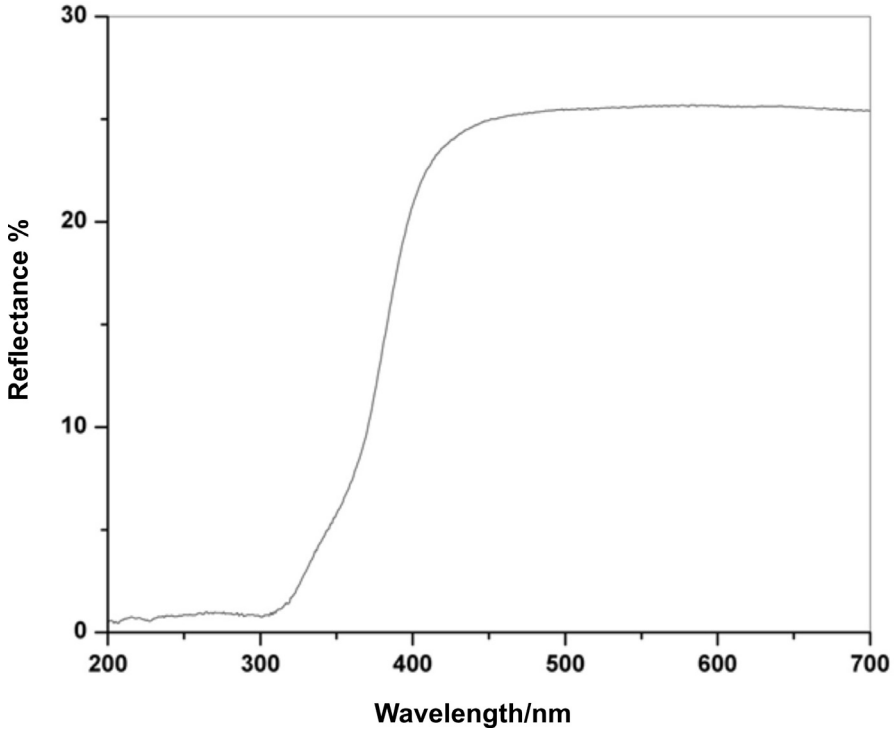

Figure S1. Solid state diffuse reflectance measurements of $[Cd_8Cl_2(\mu_4\text{-Se})(SePh)_{12}(PCy_3)_2]$ (UV-Visible wavelength range).

*e-mail: eslang@quimica.ufsm.br

Table S1. Selected bond lengths (Å) and angles (°) refined from X-ray data for $[Cd_8Cl_2(\mu_4\text{-}Se)(SePh)_{12}(PCy_3)_2]\cdot 2.5CH_3OH$

Bond Lengths			
Se(1)-Cd(2)	2.6361(8)	Se(1)-Cd(1)	2.6791(8)
Se(2)-Cd(3)	2.6247(8)	Se(2)-Cd(1)	2.6763(9)
Se(3)-Cd(4)	2.6408(9)	Se(3)-Cd(1)	2.7026(9)
Se(4)-Cd(2)	2.6320(8)	Se(4)-Cd(5)	2.6851(9)
Se(5)-Cd(3)	2.6154(9)	Se(5)-Cd(5)	2.6358(8)
Se(6)-Cd(6)	2.6166(9)	Se(6)-Cd(5)	2.6624(9)
Se(7)-Cd(3)	2.6277(9)	Se(7)-Cd(7)	2.6583(9)
Se(8)-Cd(4)	2.6248(9)	Se(8)-Cd(7)	2.6532(9)
Se(9)-Cd(6)	2.6261(9)	Se(9)-Cd(7)	2.6483(9)
Se(10)-Cd(2)	2.6461(9)	Se(10)-Cd(8)	2.6678(9)
Se(11)-Cd(6)	2.6400(9)	Se(11)-Cd(8)	2.6965(10)
Se(12)-Cd(4)	2.6546(8)	Se(12)-Cd(8)	2.6741(10)
Se(13)-Cd(4)	2.5768(8)	Se(13)-Cd(2)	2.5798(8)
Se(13)-Cd(3)	2.5891(8)	Se(13)-Cd(6)	2.5932(8)
P(2)-Cd(8)	2.613(2)	P(1)-Cd(1)	2.6148(18)
Cl(1)-Cd(5)	2.458(2)	Cl(2)-Cd(7)	2.461(2)
Bond Angles			
Cd(2)-Se(4)-Cd(5)	101.40(3)	C(51)-Se(5)-Cd(3)	96.3(2)
C(51)-Se(5)-Cd(5)	105.3(2)	Cd(3)-Se(5)-Cd(5)	98.01(3)
C(61)-Se(6)-Cd(6)	99.7(2)	C(61)-Se(6)-Cd(5)	103.5(2)
Cd(6)-Se(6)-Cd(5)	98.24(3)	Cd(3)-Se(7)-Cd(7)	102.01(3)
C(81)-Se(8)-Cd(4)	97.1(2)	C(81)-Se(8)-Cd(7)	108.1(2)
Cd(4)-Se(8)-Cd(7)	96.66(3)	Cd(6)-Se(9)-Cd(7)	96.38(3)
Cd(2)-Se(10)-Cd(8)	102.15(3)	Cd(6)-Se(11)-Cd(8)	103.07(3)
Cd(4)-Se(12)-Cd(8)	106.22(3)	Cd(4)-Se(13)-Cd(2)	107.00(3)
Cd(4)-Se(13)-Cd(3)	110.15(3)	Cd(2)-Se(13)-Cd(3)	108.00(3)
Cd(4)-Se(13)-Cd(6)	112.84(3)	Cd(2)-Se(13)-Cd(6)	111.81(3)
Cd(3)-Se(13)-Cd(6)	106.96(3)	P(1)-Cd(1)-Se(2)	108.18(5)
P(1)-Cd(1)-Se(1)	111.49(5)	Se(2)-Cd(1)-Se(1)	111.36(3)
P(1)-Cd(1)-Se(3)	116.68(5)	Se(2)-Cd(1)-Se(3)	105.42(3)
Se(1)-Cd(1)-Se(3)	103.54(3)	Se(13)-Cd(2)-Se(4)	101.43(3)
Se(13)-Cd(2)-Se(1)	108.29(3)	Se(4)-Cd(2)-Se(1)	116.52(3)
Se(13)-Cd(2)-Se(10)	102.98(3)	Se(4)-Cd(2)-Se(10)	113.16(3)
Se(1)-Cd(2)-Se(10)	112.72(3)	Se(13)-Cd(3)-Se(5)	105.09(3)
Se(13)-Cd(3)-Se(2)	103.77(3)	Se(5)-Cd(3)-Se(2)	112.61(3)
Se(13)-Cd(3)-Se(7)	100.72(3)	Se(5)-Cd(3)-Se(7)	119.42(3)
Se(2)-Cd(3)-Se(7)	112.80(3)	Se(13)-Cd(4)-Se(8)	104.89(3)
Se(13)-Cd(4)-Se(3)	105.29(3)	Se(8)-Cd(4)-Se(3)	111.80(3)
Se(13)-Cd(4)-Se(12)	99.09(3)	Se(8)-Cd(4)-Se(12)	114.69(3)
Se(3)-Cd(4)-Se(12)	118.67(3)	Cl(1)-Cd(5)-Se(5)	110.08(6)
Cl(1)-Cd(5)-Se(6)	106.97(6)	Se(5)-Cd(5)-Se(6)	110.72(3)
Cl(1)-Cd(5)-Se(4)	109.33(6)	Se(5)-Cd(5)-Se(4)	107.94(3)
Se(6)-Cd(5)-Se(4)	111.80(3)	Se(13)-Cd(6)-Se(6)	105.10(3)
Se(13)-Cd(6)-Se(9)	105.99(3)	Se(6)-Cd(6)-Se(9)	114.63(3)
Se(13)-Cd(6)-Se(11)	101.71(3)	Se(6)-Cd(6)-Se(11)	113.90(3)
Se(9)-Cd(6)-Se(11)	113.84(3)	Cl(2)-Cd(7)-Se(9)	102.32(6)
Cl(2)-Cd(7)-Se(8)	107.93(7)	Se(9)-Cd(7)-Se(8)	118.50(3)
Cl(2)-Cd(7)-Se(7)	110.50(7)	Se(9)-Cd(7)-Se(7)	108.76(3)
Se(8)-Cd(7)-Se(7)	108.59(3)	P(2)-Cd(8)-Se(10)	113.68(6)
P(2)-Cd(8)-Se(12)	117.81(8)	Se(10)-Cd(8)-Se(12)	102.39(3)
P(2)-Cd(8)-Se(11)	105.78(7)	Se(10)-Cd(8)-Se(11)	109.11(3)
Se(12)-Cd(8)-Se(11)	107.80(3)		