Table-3(1)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCAP) and its metal complexes

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)					Λ^*_M	μ_{eff} (BM)
				C	H	N	M	Cl		
$[C_{16}H_{13}N_3O_2]$	75	279	165	68.30 (68.80)	4.44 (4.65)	15.55 (15.03)	--	--	--	--
$[Cu(C_{16}H_{13}N_3O_2)Cl_2]_n$	60	412	>300	47.64 (46.60)	3.25 (3.15)	10.52 (10.19)	15.97 (15.42)	17.14 (17.23)	10.50	1.66
$[Co(C_{16}H_{13}N_3O_2)_2Cl_2]$	65	687	298 d	56.02 (55.97)	3.76 (3.49)	12.41 (12.24)	8.62 (8.59)	10.22 (10.36)	8.00	4. 90
$[Ni(C_{16}H_{13}N_3O_2)_2Cl_2]$	62	686	291 d	56.18 (56.05)	3.71 (3.50)	12.42 (12.26)	8.61 (8.56)	10.24 (10.36)	9.00	2..89
$[Zn\ (C_{16}H_{12}\ N_3O_2)_2]$	60	621	275 d	61.92 (61.83)	3.97 (3.86)	13.64 (13.52)	10.67 (10.52)	--	9.80	--
$[Cd\ (C_{16}H_{12}\ N_3O_2)_2]$	65	668	>290	57.55 (57.48)	3.67 (3.59)	12.68 (12.57)	16.93 (16.82)	--	7.80	--
$[Hg\ (C_{16}H_{12}\ N_3O_2)_2]$	60	755	>295	50.85 (50.79)	3.26 (3.17)	11.24 (11.11)	--	--	5.10	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$

Table-3(2)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCAT) and its metal complexes.

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)						$\wedge^*_M$	μ_{eff} (BM)
				C	H	N	S	M	Cl		
$[C_{15}H_{12}N_2O_2S]$	75	284	154	62.73 (63.38)	4.47 (4.22)	9.89 (9.85)	10.48 (11.26)	--	--	--	--
$[Cu(C_{15}H_{12}N_2O_2S)Cl_2]_n$	60	417	>300	44.21 (43.16)	3.05 (2.87)	6.92 (6.71)	7.35 (7.67)	15.86 (15.23)	17.11 (17.02)	16.30	1.72
$[Co(C_{15}H_{11}N_2O_2S)_2.2H_2O]$	65	661	297 d	54.15 (54.46)	3.10 (3.32)	8.23 (8.47)	9.42 (9.68)	8.45 (8.91)	--	15.20	4.89
$[Ni(C_{15}H_{11}N_2O_2S)_2.2H_2O]$	62	660	290 d	54.31 (54.54)	3.16 (3.33)	8.29 (8.48)	9.37 (9.69)	8.40 (8.89)	--	12.50	2.95
$[Zn\ (C_{15}H_{11}N_2O_2S)_2]$	60	631	274 d	56.96 (57.05)	3.15 (3.48)	8.41 (8.87)	9.85 (10.14)	10.28 (10.36)	--	9.30	--
$[Cd\ (C_{15}H_{11}N_2O_2S)_2]$	65	678	>290	52.88 (53.09)	3.14 (3.24)	8.15 (8.25)	9.15 (9.43)	16.10 (16.51)	--	7.40	--
$[Hg\ (C_{15}H_{11}N_2O_2S)_2]$	60	766	>295	46.48 (46.99)	2.66 (2.87)	7.22 (7.31)	8.16 (8.35)	--	--	6.50	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$.

Table-3(3)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCACP) and its metal complexes

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)					Λ^*_M	μ_{eff} (BM)
				C	H	N	M	Cl		
$[C_{17}H_{14}N_2O_2]$	75	278	177	73.16 (73.38)	4.98 (5.03)	9.86 (10.07)	--	--	--	--
$[Cu(C_{17}H_{14}N_2O_2)Cl_2]_n$	65	412	>300	49.21 (49.51)	3.18 (3.39)	6.48 (6.79)	15.27 (15.42)	17.08 (17.20)	14.85	1..68
$[Co(C_{17}H_{14}N_2O_2)Cl_2]_n$	68	408	290 d	49.88 (50.00)	3.98 (4.16)	6.59 (6.86)	14.26 (14.44)	17.22 (17.37)	11.25	4. 84
$[Ni(C_{17}H_{14}N_2O_2)Cl_2]_n$	64	407	295 d	49.20 (50.12)	3.26 (3.43)	6.60 (6.87)	14.21 (14.42)	17.33 (17.42)	13.85	2..96
$[Zn(C_{17}H_{14}N_2O_2)Cl_2]$	66	414	280 d	49.02 (49.27)	3.16 (3.38)	6.45 (6.76)	15.58 (15.79)	16.98 (17.12)	09.95	--
$[Cd(C_{17}H_{14}N_2O_2)Cl_2]$	65	461	>295	44.08 (44.25)	2.96 (3.03)	5.96 (6.07)	24.19 (24.38)	15.12 (15.37)	12.05	--
$[Hg(C_{17}H_{14}N_2O_2)Cl_2]$	68	549	>295	37.02 (37.15)	2.98 (3.09)	4.86 (5.10)	--	12.78 (12.91)	16.85	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$

Table-3(4)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCMeOACP) and its metal complexes

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)					Λ^*_M	μ_{eff} (BM)
				C	H	N	M	Cl		
$[C_{18}H_{16}N_2O_3]$	78	308	157	69.38 (70.12)	5.08 (5.19)	8.87 (9.09)	--	--	--	--
$[Cu(C_{18}H_{16}N_2O_3)Cl_2]_n$	65	442	>300	48.72 (48.86)	3.55 (3.69)	6.21 (6.33)	14.21 (14.37)	15.89 (16.02)	16.20	1..84
$[Co(C_{18}H_{16}N_2O_3)Cl_2]_n$	68	438	295d	49.21 (49.31)	3.53 (3.65)	6.20 (6.39)	13.28 (13.45)	16.05 (16.18)	12.80	4. 88
$[Ni(C_{18}H_{16}N_2O_3)Cl_2]_n$	64	437	290d	49.33 (49.42)	3.53 (3.66)	6.29 (6.40)	13.31 (13.43)	16.13 (16.22)	12.30	2.87
$[Zn(C_{18}H_{16}N_2O_3)Cl_2]$	68	444	275d	48.48 (48.64)	3.44 (3.60)	6.21 (6.30)	14.22 (14.31)	15.81 (15.96)	11.95	--
$[Cd(C_{18}H_{16}N_2O_3)Cl_2]$	65	491	>290	43.78 (43.99)	3.13 (3.25)	5.59 (5.70)	22.78 (22.89)	14.22 (14.43)	15.55	--
$[Hg(C_{18}H_{16}N_2O_3)Cl_2]$	68	580	>295	37.10 (37.24)	2.61 (2.75)	4.69 (4.82)	--	12.08 (12.22)	17.60	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$

Table-3(5)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCClACP) and its metal complexes

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)					Λ^*_M	μ_{eff} (BM)
				C	H	N	M	Cl		
$[C_{17}H_{13}N_2O_2Cl]$	76	313	144	65.25 (65.38)	4.08 (4.16)	8.78 (8.97)	--	11.26 (11.37)	--	--
$[Cu(C_{17}H_{13}N_2O_2Cl)Cl_2]_n$	66	448	>300	45.14 (45.58)	2.35 (2.90)	6.02 (6.25)	14.03 (14.19)	7.78 (7.93)	15.65	1.92
$[Co(C_{17}H_{13}N_2O_2Cl)Cl_2]_n$	65	443	295d	45.89 (46.05)	2.78 (2.93)	6.13 (6.32)	13.12 (13.30)	7.88 (8.01)	11.45	4.95
$[Ni(C_{17}H_{13}N_2O_2Cl)Cl_2]_n$	68	442	290d	45.91 (46.08)	2.82 (2.94)	6.11 (6.33)	13.02 (13.26)	7.89 (8.02)	13.50	2.85
$[Zn(C_{17}H_{13}N_2O_2Cl)Cl_2]$	68	449	272d	45.11 (45.39)	2.72 (2.89)	6.04 (6.23)	14.33 (14.54)	7.78 (7.90)	11.95	--
$[Cd(C_{17}H_{13}N_2O_2Cl)Cl_2]$	64	496	>295	40.98 (41.10)	2.48 (2.61)	5.44 (5.64)	22.42 (22.63)	7.04 (7.15)	14.50	--
$[Hg(C_{17}H_{13}N_2O_2Cl)Cl_2]$	65	585	>290	34.66 (34.89)	2.11 (2.22)	4.66 (4.78)	--	5.98 (6.07)	18.05	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$

Table-3(6)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCMeTPC) and its metal complexes.

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)						Λ^*_M	μ_{eff} (BM)
				C	H	N	S	M	Cl		
$[C_{15}H_{12}N_2O_2S]$	72	284	238	63.25 (63.36)	4.15 (4.25)	9.72 (9.85)	11.10 (11.28)	--	--	--	--
$[Cu(C_{15}H_{12}N_2O_2S)Cl_2]_n$	65	419	>300	42.82 (42.95)	2.71 (2.86)	6.52 (6.68)	7.52 (7.64)	15.08 (15.16)	8.33 (8.46)	19.34	1.65
$[Co(C_{15}H_{12}N_2O_2S)Cl_2]_n$	66	414	292d	43.32 (43.48)	2.22 (2.30)	6.58 (6.76)	7.62 (7.73)	14.11 (14.23)	8.45 (8.56)	16.68	4.85
$[Ni(C_{15}H_{12}N_2O_2S)Cl_2]_n$	64	413	285d	43.41 (43.58)	2.79 (2.90)	6.66 (6.78)	7.65 (7.75)	14.10 (14.21)	8.44 (8.58)	17.55	2.86
$[Zn(C_{15}H_{12}N_2O_2S)Cl_2]$	68	420	271d	42.73 (42.86)	2.72 (2.86)	6.52 (6.67)	7.52 (7.62)	15.42 (15.56)	8.32 (8.44)	15.35	--
$[Cd(C_{15}H_{12}N_2O_2S)Cl_2]$	62	467	>300	38.38 (38.54)	2.44 (2.57)	5.88 (6.00)	6.71 (6.85)	23.95 (24.06)	7.45 (7.59)	14.24	--
$[Hg(C_{15}H_{12}N_2O_2S)Cl_2]$	60	556	>294	32.21 (32.37)	2.06 (2.16)	4.96 (5.04)	5.63 (5.76)	--	8.23 (6.37)	13.44	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$.

Table-3(7)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCMeTB) and its metal complexes.

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)						Λ^*_M	μ_{eff} (BM)
				C	H	N	S	M	Cl		
$[C_{17}H_{14}N_2O_2S]$	76	310	208	63.65 (65.79)	4.45 (4.55)	8.88 (9.03)	10.22 (10.33)	--	--	--	--
$[Cu(C_{17}H_{14}N_2O_2S)Cl_2]_n$	68	445	>300	45.72 (45.84)	3.08 (3.15)	6.11 (6.23)	7.11 (7.19)	14.12 (14.28)	15.83 (15.95)	18.12	1.69
$[Co(C_{17}H_{14}N_2O_2S)Cl_2]_n$	65	440	286	46.21 (46.36)	3.10 (3.18)	6.24 (6.36)	7.22 (7.27)	13.23 (13.39)	16.08 (16.14)	16.48	4.86
$[Ni(C_{17}H_{14}N_2O_2S)Cl_2]_n$	66	439	288d	46.36 (46.47)	3.13 (3.19)	6.29 (6.38)	7.22 (7.29)	13.25 (13.37)	16.09 (16.17)	15.55	2.84
$[Zn(C_{17}H_{14}N_2O_2S)Cl_2]$	64	446	275d	45.62 (45.74)	3.11 (3.14)	6.12 (6.28)	7.09 (7.17)	14.52 (14.66)	15.80 (15.92)	12.88	--
$[Cd(C_{17}H_{14}N_2O_2S)Cl_2]$	60	493	>300	41.20 (41.38)	2.76 (2.84)	6.55 (6.68)	6.35 (6.49)	22.71 (22.80)	14.29 (14.40)	15.84	--
$[Hg(C_{17}H_{14}N_2O_2S)Cl_2]$	62	582	>296	34.95 (35.05)	2.33 (2.41)	4.70 (4.81)	5.44 (5.50)	--	12.06 (12.12)	12.44	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$.

Table-3(8)
Elemental analysis, molar conductance and magnetic susceptibility data for the Ligand (BCEtHB) and its metal complexes

Ligand / Complexes	Yield (%)	Mol wt	M P (^{0}C)	Elemental analysis found / (calculated) (%)					Λ^*_M	μ_{eff} (BM)
				C	H	N	M	Cl		
$[C_{18}H_{16}N_2O_4]$	78	324	198	66.46 (66.60)	4.78 (4.97)	8.48 (8.64)	--	--	--	--
$[Cu(C_{18}H_{16}N_2O_4)Cl_2]_n$	68	459	>300	46.97 (46.06)	3.39 (3.48)	6.03 (6.10)	13.71 (13.84)	15.38 (15.47)	18.75	1..70
$[Co(C_{18}H_{16}N_2O_4)Cl_2]_n$	65	454	280	47.42 (47.58)	3.41 (3.52)	6.09 (6.17)	12.82 (12.99)	15.54 (15.64)	15.45	4. 82
$[Ni(C_{18}H_{16}N_2O_4)Cl_2]_n$	67	453	285 d	47.52 (47.68)	3.41 (3.53)	6.09 (6.18)	12.85 (12.95)	15.52 (15.67)	16.55	2. 88
$[Zn(C_{18}H_{16}N_2O_4)Cl_2]$	69	460	278 d	46.82 (46.96)	3.33 (3.48)	6.00 (6.09)	14.11 (14.21)	15.33 (15.43)	12.75	--
$[Cd(C_{18}H_{16}N_2O_4)Cl_2]$	62	507	>290	42.51 (42.60)	3.08 (3.16)	5.42 (5.52)	22.09 (22.17)	13.88 (14.00)	14.45	--
$[Hg(C_{18}H_{16}N_2O_4)Cl_2]$	64	596	>300	36.15 (36.24)	2.59 (2.68)	4.62 (4.70)	--	11.83 (11.91)	12.65	--

* Molar conductance values in $ohm^{-1}cm^2mole^{-1}$