

# APPENDIXES

## Appendix 1

### Physical properties of the Schiff bases and complexes :

Compound	Formula	Yield (%)	Colour	Formula wt	Found (Calcd.) %		
					C	H	N
H <sub>2</sub> L1	NiC <sub>23</sub> H <sub>17</sub> O <sub>4</sub> N <sub>5</sub> Cl <sub>2</sub>	72	Yellow	464.35	59.62 (59.43)	3.11 (3.23)	15.51 (15.07)
NiL1.2H <sub>2</sub> O	C <sub>23</sub> H <sub>15</sub> O <sub>2</sub> N <sub>5</sub> Cl <sub>2</sub>	77	Green	559.04	50.03 (49.88)	2.94 (3.05)	12.98 (12.57)
CuL1.H <sub>2</sub> O	CuC <sub>23</sub> H <sub>15</sub> O <sub>3</sub> N <sub>5</sub> Cl <sub>2</sub>	78	Green	543.89	50.05 (50.75)	2.92 (2.75)	13.10 (12.87)
ZnL1.2H <sub>2</sub> O	ZnC <sub>23</sub> H <sub>17</sub> O <sub>4</sub> N <sub>5</sub> Cl <sub>2</sub>	75	Yellow	563.74	49.54 (48.95)	2.91 (3.01)	13.02 (12.41)
H <sub>2</sub> L2	C <sub>23</sub> H <sub>15</sub> O <sub>2</sub> N <sub>5</sub> Br <sub>2</sub>	82	Yellow	535.25	50.03 (49.88)	2.22 (2.71)	12.94 (12.65)
NiL2.2H <sub>2</sub> O	NiC <sub>23</sub> H <sub>17</sub> O <sub>4</sub> N <sub>5</sub> Br <sub>2</sub>	76	Green	645.94	43.56 (42.72)	2.59 (2.63)	11.14 (10.83)
CuL2.H <sub>2</sub> O	CuC <sub>23</sub> H <sub>15</sub> O <sub>3</sub> N <sub>5</sub> Br <sub>2</sub>	70	Green	632.79	43.07 (43.61)	2.37 (2.37)	11.06 (11.06)
ZnL2.2H <sub>2</sub> O	ZnC <sub>23</sub> H <sub>17</sub> O <sub>4</sub> N <sub>5</sub> Br <sub>2</sub>	74	Yellow	652.64	43.06 (42.28)	2.24 (2.60)	11.12 (10.72)
H <sub>2</sub> L3	C <sub>23</sub> H <sub>15</sub> O <sub>6</sub> N <sub>7</sub>	76	Orange	485.45	57.87 (56.85)	2.98 (3.08)	21.48 (20.18)
NiL3.2H <sub>2</sub> O	NiC <sub>23</sub> H <sub>17</sub> O <sub>8</sub> N <sub>7</sub>	71	Green	578.14	48.01 (47.73)	2.58 (2.94)	17.34 (16.95)
CuL3.H <sub>2</sub> O	CuC <sub>23</sub> H <sub>15</sub> O <sub>7</sub> N <sub>7</sub>	74	Green	564.99	48.13 (48.85)	2.55 (2.65)	17.34 (17.34)
ZnL3.2H <sub>2</sub> O	ZnC <sub>23</sub> H <sub>17</sub> O <sub>8</sub> N <sub>7</sub>	77	Yellow	548.84	48.05	2.42	17.38

						(47.19)	(2.90)	(16.75)
H <sub>2</sub> L4	C <sub>23</sub> H <sub>17</sub> N <sub>5</sub> O <sub>4</sub>	74	Grey	427.45	64.98	3.10	17.04	
					(64.56)	(3.97)	(16.37)	
NiL4.2H <sub>2</sub> O	NiC <sub>23</sub> H <sub>19</sub> O <sub>6</sub> N <sub>5</sub>	72	Brown	520.14	54.15	3.38	13.94	
					(53.06)	(3.65)	(13.45)	
CuL4.H <sub>2</sub> O	CuC <sub>23</sub> H <sub>17</sub> O <sub>5</sub> N <sub>5</sub>	73	Brown	506.99	53.43	2.95	13.80	
					(54.43)	(3.35)	(13.80)	
ZnL4.2H <sub>2</sub> O	ZnC <sub>23</sub> H <sub>19</sub> O <sub>6</sub> N <sub>5</sub>	73	Yellow	526.84	53.54	2.99	14.01	
					(52.38)	(3.60)	(13.28)	
H <sub>2</sub> L5	C <sub>23</sub> H <sub>17</sub> O <sub>4</sub> N <sub>5</sub>	78	Orange	427.45	65.21	3.49	16.92	
					(64.56)	(3.97)	(16.37)	
NiL5.2H <sub>2</sub> O	NiC <sub>23</sub> H <sub>19</sub> O <sub>6</sub> N <sub>5</sub>	76	Green	520.14	54.26	3.12	14.02	
					(53.06)	3.65)	(13.45)	
CuL5.H <sub>2</sub> O	CuC <sub>23</sub> H <sub>17</sub> O <sub>5</sub> N <sub>5</sub>	71	Green	506.99	53.10	3.05	14.78	
					(54.43)	(3.35)	(13.80)	
ZnL5.2H <sub>2</sub> O	ZnC <sub>23</sub> H <sub>19</sub> O <sub>6</sub> N <sub>5</sub>	79	Yellow	526.84	53.15	3.02	13.82	
					(52.38)	(3.60)	(13.28)	
H <sub>2</sub> L6	C <sub>39</sub> H <sub>49</sub> N <sub>5</sub> O <sub>2</sub>	79	Yellow	619.89	75.49	7.90	11.29	
					(76.35)	(7.21)	(11.87)	
NiL6.2H <sub>2</sub> O	NiC <sub>39</sub> H <sub>51</sub> O <sub>4</sub> N <sub>5</sub>	75	Green	712.58	65.67	7.15	9.82	
					(66.57)	(6.46)	(10.15)	
CuL6.H <sub>2</sub> O	CuC <sub>39</sub> H <sub>49</sub> O <sub>3</sub> N <sub>5</sub>	78	Green	699.43	66.91	7.01	10.01	
					(66.13)	(6.34)	(10.79)	
ZnL6.2H <sub>2</sub> O	ZnC <sub>39</sub> H <sub>51</sub> O <sub>4</sub> N <sub>5</sub>	75	Yellow	719.28	65.06	7.09	9.73	
					(66.14)	(6.78)	(10.03)	

