

Table 8.1 Typical ligands and their names

Name	Formula	Abbreviation	Donor atoms	Number of donors
Acetylacetonato		acac	O	2
Ammine	NH ₃		N	1
Aqua	H ₂ O		O	1
2,2-Bipyridine		bipy	N	2
Bromo	Br ⁻		Br	1
Carbanato	CO ₃ ²⁻		O	1 or 2
Carbonyl	CO		C	1
Chloro	Cl ⁻		Cl	1
Cyano	CN ⁻		C	1
Diethylenetriamine	NH(CH₂CH₂NH₂)₂	dien	N	3

Table 8.1 part 1
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Table 8.1 Typical ligands and their names

Name	Formula	Abbreviation	Donor atoms	Number of donors
Bis(diphenylphosphino)ethane		dppe	P	2
Bis(diphenylphosphino)methane		dppm	P	2
Cyclopentadienyl	C₅H₅	Cp	C	5
Ethylenediamine (1,2-diaminoethane)	NH ₂ CH ₂ CH ₂ NH ₂	en	N	2
Ethylenediamine(tetraacetato)		edta	N, O	2N, 4O
Fluoro	F ⁻		F	1
Glycinate	NH₂CH₂CO₂⁻	gly	N, O	1N, 1O
Hydrido	H ⁻		H	1
Hydroxo	OH ⁻		O	1
Iodo	I ⁻		I	1

Table 8.1 part 2
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Table 8.1 (Continued)

Name	Formula	Abbreviation	Donor atoms	Number of donors
Isothiocyanato	NCS	N	S	1
Nitrate	NO₃	O	1 or 2	1 or 2
Nitrite	NO₂	O	1	1
Nitro	NO₂	N	O	1
Oxo	O ²⁻		O	1
Oxalato		ox	O	2
Pyridine		py	N	1
Sulfido	S ²⁻		S	1
Tetraazacyclotetramine		cyclam	N	4
Thiocyanato	SCN	S	C	1
Thiolato	RS ⁻		S	1
Triaminotriethylamine	N(CH₂CH₂NH₂)₃	trien	N	3
Tricyclohexylphosphine	P(C₆H₁₁)₃	PCy₃	P	1
Tricyclohexylphosphine	P(C₆H₁₁)₃	PCy₃	P	1
Trimesitylphosphine	P(C₆H₄)₃	PMes₃	P	1
Trimesitylphosphine	P(C₆H₄)₃	PMes₃	P	1
Triphenylphosphine	P(C ₆ H ₅) ₃	PPh ₃	P	1

Table 8.1 part 3
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Table 8.2 Prefixes used for naming complexes

Prefix	Meaning
mono-	1
di-, bis-	2
tri-, tris-	3
tetra-, tetrakis-	4
penta-	5
hexa-	6
hepta-	7
octa-	8
nona-	9
deca-	10
undeca-	11
dodeca-	12

Table 8.2
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