9.6. TYPICAL INTERATOMIC DISTANCES: ORGANOMETALLIC COMPOUNDS AND COMPLEXES

Table 9.6.3.2. *Numbers of entries in Table 9.6.3.3*

Numbers of entries for which < 4 examples are known are given first, followed by numbers of entries for which statistics are quoted (*i.e.* those with > 4 examples).

	Ligand atoms														
	H	B	C	N	O	F	Si	P	S	Cl	As	Se	Br	Te	I
Ligand class / Metal *†	5	4	66	71	79	4	1	32	49	3	2	1	3	1	3
Sc[1]		1, 0	0, 1		0, 4										
Ti[2,3]		2, 0	6, 8	14, 5	4, 15	1, 0		1, 2	4, 3	1, 2	1, 0		1, 0		
V[4,5,6]		2, 0	8, 8	6, 5	10, 10	0, 1		3, 3	2, 6	0, 2	1, 0				1, 0
Cr[7]	1, 0	1, 2	9, 15	12, 13	5, 19	0, 1		9, 5	1, 7	1, 1	0, 2	1, 0	2, 0	1, 0	1, 0
Mn		0, 3	15, 12	14, 13	14, 10	1, 0	1, 0	5, 6	7, 4	0, 2	0, 2	1, 0	1, 1	0, 1	1, 1
Fe	0, 2	1, 2	10, 33	13, 19	14, 12		0, 1	6, 13	7, 16	0, 2	0, 2	0, 1	2, 0	0, 1	1, 1
Co[8]	2, 0	0, 4	11, 27	5, 28	18, 22			6, 10	7, 11	1, 2	0, 2		0, 1		0, 1
Ni[9,10]	0, 1	2, 1	7, 20	9, 23	9, 18	1, 0		6, 8	12, 13	0, 2	1, 1	0, 1	0, 2		1, 1
Cu[11,12]	1, 0	3, 0	1, 11	7, 35	18, 31	3, 0		3, 3	7, 12	0, 3	0, 1	1, 0	0, 3		0, 3
Zn	1, 0	2, 0	3, 2	7, 16	14, 10				7, 3	0, 2			0, 1		0, 1
Y[1]		1, 0	0, 1		2, 6					0, 1					
Zr[13]		1, 0	6, 8	10, 1	5, 7	0, 1		1, 1	4, 0	0, 2		1, 0			1, 0
Nb[14]			4, 6	3, 5	2, 9	0, 1		2, 0	1, 6	1, 2	0, 1				
Mo[15,16]	1, 1	1, 0	11, 25	17, 26	7, 28	1, 1	1, 0	5, 11	3, 20	1, 2	0, 2	1, 0	0, 2	1, 0	0, 2
Tc[17,18]			0, 1	5, 5	3, 5			1, 2	1, 2	1, 1	0, 1		2, 0		
Ru	0, 1	2, 1	12, 25	19, 9	11, 8		0, 1	2, 13	4, 4	0, 2	0, 2		0, 2		1, 1
Rh	2, 1	0, 2	11, 25	12, 18	11, 14		1, 0	5, 13	6, 7	0, 2	1, 1	0, 1	0, 2		0, 2
Pd		0, 1	9, 15	14, 13	6, 6			8, 7	4, 10	1, 2	1, 1		0, 1		1, 1
Ag		1, 0	4, 2	8, 6	8, 2	1, 0		2, 3	4, 6	2, 1		1, 0	1, 0		1, 2
Cd[19]				3, 14	12, 10			2, 0	6, 4	0, 3			1, 2		0, 1
La§				1, 1	4, 7				1, 0	1, 0					
Ce§			0, 2	0, 1	4, 4				0, 1	1, 0					
Pr§			1, 1	1, 0	2, 5					2, 0					
Nd§				2, 2	7, 5					1, 0					
Sm§			0, 1	2, 1	8, 6										
Eu§			0, 1	0, 1	3, 6										
Gd§			0, 1	1, 0	2, 4										
Tb§					1, 0										
Dy§				2, 1	1, 2				0, 1						
Ho§					0, 1										
Er§			0, 1	1, 1	4, 4					1, 0					
Tm§									0, 1						
Yb§			0, 2	2, 2	3, 2					2, 0					1, 0
Lu§			1, 2	1, 0	0, 1				0, 1						
Hf[13]			2, 4	1, 0	2, 2			0, 2		1, 0					
Ta[23]	1, 0		5, 7	4, 1	4, 2			2, 2	2, 4	0, 2			1, 0		
W[24,159]	0, 2	1, 1	9, 20	10, 7	4, 12	1, 0	1, 0	4, 6	7, 5	1, 2	1, 0	1, 0	0, 1		1, 1
Re	0, 2	0, 1	10, 13	9, 9	11, 12	1, 0	0, 1	4, 5	4, 3	0, 2	0, 1	1, 0	0, 2		0, 2
Os	0, 2	2, 0	12, 11	9, 7	6, 6		1, 0	4, 6	3, 3	0, 2	1, 0	1, 0	1, 0		0, 1
Ir	1, 1	1, 1	11, 12	12, 4	3, 4	1, 0	1, 0	5, 9	5, 5	0, 2		1, 0	0, 2		0, 2
Pt	2, 0	0, 1	4, 25	11, 13	8, 10	1, 0	0, 1	6, 13	8, 11	0, 2	0, 1	1, 0	0, 2	1, 0	0, 2
Au[25]		0, 1	4, 3	6, 0	4, 0			5, 3	7, 3	0, 1			0, 1		1, 0
Hg[26]		1, 0	8, 3	10, 5	11, 2		0, 1	3, 2	2, 6	1, 2		1, 0	0, 2	0, 1	0, 2
Th§	1, 0		1, 2	0, 3	5, 8			1, 0	0, 1	0, 1					
U§		0, 1	1, 5	7, 5	16, 18	1, 2		1, 0	1, 1	0, 2			0, 1		

* No entries for Pm, Pa, and Ac. † Superscripts refer to entries in Appendix 1. § See references 1, 20–23 in Appendix 1.

state is not always well defined, where no assignment was possible then this is indicated by (−) rather than the roman numeral used elsewhere. Finally, cases where the ligand oxidation state is variable are identified (*e.g.* for O_2, *o*-quinones *etc.*) by references to the footnotes at the end of Table 9.6.3.3.

9.6.3.3. *Use of the 'Note' column*

The 'Note' column refers to the footnotes collected in Appendix 1. These record additional information as follows: (*a*) notable features of the distribution of distances, *e.g.* likely bias due to dominance by one structure of substructure, skewness, bimodality (subdivisions of the entry usually follow, which remove these features whenever possible); (*b*) further details of the chemical substructure, such as the exclusion of structures with particular *trans* ligands; (*c*) details of exclusion criteria used for a given entry or group of entries, such as the constraint that the two *M*—Cl distances, in bridging (μ_2) chloride complexes, differ by <0.1 Å (section 10.1.1.2); (*d*)

 references