498 **$C_4H_2O_4Os$** **Tetracarbonyldihydridoosmium** **C_{2v}**
MW $H_2Os(CO)_4$

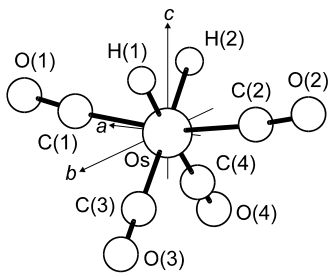
r_0	Å
Os–C(1)	1.958(12)
Os–C(3)	1.968(16)
Os–H(1)	1.720(11)
H(1)...H(2)	2.40(2)
C(1)≡O	1.130 [a])
C(3)≡O	1.143 [a])

θ_0	deg
z...s–C(1) [b])	81.6(14)
z...s–C(3) [b])	130.6(11)
H(1)–Os–H(2)	88.3(7)
C(3)–Os–C(4)	99(2)
Os–C(1)≡O(1)	174(5)
Os–C(3)≡O(3)	178(4)
C(1)–Os–C(2)	163(3)

r_s	Å [c])
H(1)...H(2)	2.39(2)
Os–C(1)	1.95(1)
Os–C(3)	1.97(2)
Os–H(1)	1.72(1)

θ_s	deg [c])
H(1)–Os–H(2)	87.9(7)
C(1)–Os–C(2)	162.8(30)
C(3)–Os–C(4)	100.8(20)

Atom	a_0 [Å]	b_0 [Å]	c_0 [Å]
C(1)	1.937	0.0	0.504
C(2)	–1.937	0.0	0.504
O(1)	3.033	0.0	0.779
O(2)	–3.033	0.0	0.779
C(3)	0.0	1.494	–1.061
C(4)	0.0	–1.494	–1.061
O(3)	0.0	2.393	–1.769
O(4)	0.0	–2.393	–1.769
H(1)	0.0	1.198	1.453
H(2)	0.0	–1.198	1.453
Os	0.0	0.0	0.219



The rather long H...H distance indicates that the molecule is clearly a “dihydride” rather than a “dihydrogen” complex.

[a]) Assumed.
[b]) *z* denotes the *c* axis.
[c]) Uncertainties were not estimated in the original paper.

Kukolich, S.G., Sickafoose, S.M., Breckenridge, S.M.: J. Amer. Chem. Soc. **118** (1996) 205.