

Table V-3. The fractions of refractory siderophile element in the Earth's core ( $X_c(1-f)/X_o$ ) and distribution coefficients ( $X_c/X_m$ , D's) in various systems.

	$\frac{X_c(1-f)}{X_o}$	$\frac{X_c}{X_m}$	D(LM/LS) (1)	D(LM/LS) (2)	D(SM/LS) (2)
Re	0.998	683		2000	$10^5$
Ir	0.997	683		20000	$9 \times 10^5$
Au	0.997	683		10000	$10^4$
W	0.932	29	25	1	20
Mo	0.979	96	1000	1300	3100
Fe	0.867	14	10		
Co	0.921	27	230	130	310
Ni	0.928	27	>5200	5000	6200

NOTE :  $X_o$ ,  $X_c$ ,  $X_m$  are respectively the concentration of elements in the bulk Earth, core and mantle;  $f$  = fraction of the mantle. LM = liquid metal+sulfide, SM = solid metal, LS = liquid silicate; (1): Kloek and Palme (1987) at  $T = 1175C$ ,  $\log fO_2 = -13.9$ , and  $S = 30\%$ ; (2): Jones and Drake (1986) at  $T = 1260C$ ,  $\log fO_2 = -12$  to  $13$ , and  $S = 25\%$ .