TABLE A8.5. Statistical data for concentrations of vapor-mobilized elements (see section 8.7, Fig. 8.25).

	S µg/g	F µg/g	Cl µg/g	Cu µg/g	Zn µg/g	As ng/g	Se ng/g	Br ng/g	Ag ng/g	Cd ng/g	In ng/g	Te ng/g	Tl ng/g	Bi ng/g	Pb µg/g
Apollo 11 MBAS															
N	11	4	7	3	9		5	12	5	8	4	3	7	6	16
Average	1930	229	13.6				203				3.35	10.7			
Std. dev.	320	38	1.2				30				0.72	2.5			
Minimum	1500	193	12	3.5	1.29		181	10.4	0.69	2.6	2.8	8	0.28	0.15	0.29
Maximum	2300	271	15	15.2	18		250	330	16	68	4.4	13	6.16	1.15	1.71
Apollo 12 MBAS															
N	30	2	13		14		10	16	9	13	12	6	9	8	12
Average	910	29					145								0.42
Std. dev.	320						43								0.14
Minimum	400	18	1.4		0.52		58	4	0.3	1.1	0.4	10	0.06	0.15	0.27
Maximum	1520	40	28		3.3		201	101	2.8	6.4	5.1	70	0.88	0.76	0.65
Apollo 15 MBAS															
N	5	3	3		11	2	7	8	7	11	11	7	7	7	6
Average	820	50			1.28		125		0.903						0.24
Std. dev.	130	9			0.41		37		0.079						0.06
Minimum	600	40	3.2		0.78	0.9	53	6	0.78	0.68	0.18	0.96	0.2	0.089	0.191
Maximum	970	57	8.4		2.1	5.5	167	51	1	104	6.8	6.2	1.45	0.41	0.35
Apollo 17 MBAS															
N	6		6		10	5	3	10	5	6	7	3	3	3	7
Average	1890				2.14		133					1.83			0.278
Std. dev.	160				0.25		57					0.31			0.030
Minimum	1590		0.38		1.7	1	68	7.6	0.082	1.1	0.23	1.5	0.16	0.043	0.24
Maximum	2000		5.9		2.5	50	176	44	1.1	9	4.7	2.1	0.77	0.22	0.36
Apollo 11 S&RB															
N	5	5	15	4	4		1	12	3	4		3	4	4	4
Average	1240				24.7		330						2.15	1.845	1.61
Std. dev.	360				4.9								0.71	0.64	0.22
Minimum	660	75	2.9	1.47	20			38	8.6	35		28	1.47	1.37	1.39
Maximum	1500	520	45	22	29			580	24	106		73	2.8	2.8	1.86

TABLE A8.5. (continued).

	S μg/g	F μg/g	Cl μg/g	Cu μg/g	Zn μg/g	As ng/g	Se ng/g	Br ng/g	Ag ng/g	Cd ng/g	In ng/g	Te ng/g	Tl ng/g	Bi ng/g	Pb μg/g
Apollo 12 S&RB															
N	8	5	5		15		13	18	8	15	4	11	13	13	8
Average	820				6.0		200				8.1				3.90
Std. dev.	240				1.7		44				1.7				0.41
Minimum	620	9	0.6		1.5		86	2.3	2.7	17	6.5	10	0.26	0.32	3.2
Maximum	1200	520	150		8.9		260	930	301	22000	10	130	5.2	38500	4.4
Apollo 14 S&RB															
N	8	3	9		11	2	8	13	8	11	3	7	8	8	7
Average	870	138			26.7	85	316						23.5	1.68	8.3
Std. dev.	117	29			5.5		32						6.3	0.29	1.0
Minimum	706	106	5.9		19	80	270	190	11.5	77	39	15	18	1.3	7.2
Maximum	1000	162	55		36	90	350	1330	30	460	120	70	35	2.2	10.0
Apollo 15 S&RB															
N	5	8	13		31	2	10	20	9	31	20	10	10	10	7
Average	624	69					193								1.81
Std. dev.	79	21					22								0.51
Minimum	520	46	6.1		7.7	15	162	74	5	20	3.1	6.2	1.46	0.87	1.10
Maximum	710	103	39		65	40	230	1183	61	240	410	33	5	2.9	2.8
Apollo 16 S&RB															
N	5	7	12		25	2	9	20	9	21	12	9	13	12	10
Average	543				19.1		224		8.5	83		17.7			1.90
Std. dev.	74				6.2		58		2.3	33		5.5			0.51
Minimum	470	27	12		6.9	35	109	80	4.5	21	2.6	8.5	0.98	0.32	0.96
Maximum	640	105	270		28	170	300	1330	11.4	140	24	27	13.2	1.7	2.8
Apollo 17 S&RB															
N		16	29		25		8	36	19	24	16	12	9	9	9
Average															1.47
Std. dev.															0.50
Minimum		17	7.8		18		210	65	1.4	11.4	1.4	10	1.3	0.7	1.08
Maximum		230	103		230		640	1580	111	320	35	105	22	148	2.5

TABLE A8.5. (continued).

	S µg/g	F µg/g	Cl µg/g	Cu µg/g	Zn µg/g	As ng/g	Se ng/g	Br ng/g	Ag ng/g	Cd ng/g	In ng/g	Te ng/g	Tl ng/g	Bi ng/g	Pb µg/g
Luna 16 S&RB															
N			1		2		2	3		2	1	2	2	2	3
Average			23.6		27		355				19	1.9	1.7	4.9	0.96
Std. dev.															0.18
Minimum					24		340	120		200		18	1.4	4.6	0.78
Maximum					29		370	370		10900		20	1.9	5.1	1.14
Luna 20 S&RB															
N			2		2		2	4	1	2	1	2	2	2	
Average			26		17		220	160	29		3.9	26		2.7	
Std. dev.								49							
Minimum			26		12		209	100		48		22	2.6	2.63	
Maximum			26		22		230	200		1740		30	6.6	2.8	
AMET S&RB															
N					6		4	8	3	3	3	3	3	3	
Average															
Std. dev.															
Minimum					4.7		190	90	2.4	19	1.5	9.2	2.3	0.73	
Maximum					189		500	330	44	220	13	230	12	45	
Apollo 14 BX															
N	1	6	12		34	2	23	31	22	34	25	15	23	22	10
Average	990	127				100									9.0
Std. dev.		64													3.2
Minimum		42	5.9		1.5	80	5.5	49	0.32	2.3	1.4	0.15	1.7	0.17	3.7
Maximum		225	64.9		35	120	340	1020	11	300	31	110	33	2.5	13.9
Apollo 15 BX															
N		13	13		32	4	29	37	29	31	30	28	29	28	
Average															
Std. dev.															
Minimum		31	1.1		0.49	1.6	1.3	8	0.24	0.62	0.18	1.8	0.08	0.08	
Maximum		310	67		80	70	360	550	39	183	17	59	28	2.4	

TABLE A8.5. (continued)

	S μg/g	F μg/g	Cl μg/g	Cu μg/g	Zn μg/g	As ng/g	Se ng/g	Br ng/g	Ag ng/g	Cd ng/g	In ng/g	Te ng/g	Tl ng/g	Bi ng/g	Pb μg/g
Apollo 16 BX															
N		13	29		49	8	45	78	45	48	3	44	46	46	10
Average															
Std. dev.															
Minimum		13	4.3		0.26	9	2.1	4.7	0.19	0.85	0.63	0.4	0.13	0.052	0.63
Maximum		93	319		50	750	800	3500	21	330	6.8	68	280	12.6	16.3
Apollo 17 BX															
N	1	23	29		58	5	56	76	56	58	10	46	56	52	14
Average	2000														
Std. dev.															
Minimum		18.8	1.7		1.2	14	3.9	4.8	0.36	0.63	0.15	1.1	0.038	0.098	0.57
Maximum		154	58.8		98	140	420	732	127	112	12.4	30	5.0	1.76	7.9

Note that data for the highland monomict rocks (HMCT) are not given because the concentrations in the HMCT scatter so much that statistics would be meaningless. For the data from other sample types, wherever the number of analyses (N) is >1 but no average or standard deviation is given, this was done because of either (1) extreme scatter in the data, where the relative standard deviation was >30%, or (2) data from mixed samples, such as highland and mare soils, where averages would be meaningless. Standard deviations are also not listed where N is <3. N=number of analyses, Std. dev.=standard deviation, MBAS=mare basalts, S&RB=soils and regolith breccias, BX=polymict breccias, AMET=Antarctic lunar meteorites.

Main sources for data used in this table: **F**: refs. 37-41, 56, 69, 71-73, 99, 101-103; **S:** refs. 1, 9, 15-19, 22-24, 28-32, 35, 47-49, 55, 57, 58, 70, 75-80, 83, 96, 106; **Cl:** refs. 36-44, 69, 72-74, 97-103; **Cu:** refs. 4, 15, 25, 53, 69, 88-90, 98-103; **Zn:** refs. 2, 3, 5-8, 10-14, 25-27, 33, 34, 45, 46, 51-53, 59-63, 95, 104, 105; **As:** refs. 69, 99-103; **Se:** refs. 3, 10, 26, 27, 33, 34, 45, 51, 53, 59, 63, 95; **Br:** refs. 3, 14, 25, 27, 33, 36-44, 46, 50, 51, 53, 54, 60-63, 69, 71-74, 101, 102, 104; **Ag:** refs. 3, 8, 25-27, 33, 34, 45, 51, 53, 59-63, 95; **Cd:** refs. 3, 5-8, 11-14, 25-27, 33, 34, 45, 51-53, 59-63, 95, 105; **In:** refs. 3, 5-8, 11-14, 25, 26, 33, 45, 52, 60, 61, 95, 105; **Te:** refs. 2, 3, 25-27, 33, 34, 45, 51-53, 60-63, 95; **I:** refs. 37-43, 71, 72, 74, 101; **Tl:** refs. 2, 3, 25-27, 33, 34, 45, 51, 53, 59-63, 95; **Bi:** refs. 2, 3, 25-27, 33, 34, 45, 51, 53, 59-63, 95; **Pb:** refs. 21, 64-68, 81, 82, 84-87, 91-94.

References: **1.** *Agrell et al.* (1970a); **2.** *Allen et al.* (1974); **3.** *Anders et al.* (1971); **4.** *Annell and Helz* (1970); **5.** *Baedecker et al.* (1971); **6.** *Baedecker et al.* (1972); **7.** *Baedecker et al.* (1973); **8.** *Baedecker et al.* (1974); **9.** *Barsukov et al.* (1977); **10.** *Boynton and Hill* (1983); **11.** *Boynton et al.* (1975); **12.** *Boynton et al.* (1976a); **13.** *Chou et al.* (1974); **14.** *Chou et al.* (1975); **15.** *Compston et al.* (1970); **16.** *Compston et al.* (1971); **17.** *Cripe and Moore* (1974); **18.** *Cripe and Moore* (1975); **19.** *Cripe and Moore* (1976); **20.** *Des Marais* (1978); **21.** *Doe and Tatsumoto* (1972); **22.** *Duncan et al.* (1973); **23.** *Duncan et al.* (1974); **24.** *Engel and Engel* (1970a,b); **25.** *Ganapathy et al.* (1970); **26.** *Ganapathy et al.* (1973); **27.** *Ganapathy et al.* (1974); **28.** *Gibson and Moore* (1973a,b); **29.** *Gibson and Moore* (1974); **30.** *Gibson et al.* (1975); **31.** *Gibson et al.* (1976); **32.** *Gibson et al.* (1977); **33.** *Gros et al.* (1976); **34.** *Higuchi and Morgan* (1975); **35.** *Hubbard et al.* (1974); **36.** *Jovanovic and Reed* (1980a); **37.** *Jovanovic and Reed* (1973); **38.** *Jovanovic and Reed* (1981); **39.** *Jovanovic and Reed* (1975); **40.** *Jovanovic and Reed* (1976a); **41.** *Jovanovic and Reed* (1977); **42.** *Jovanovic and Reed* (1978a); **43.** *Jovanovic and Reed* (1978b); **44.** *Jovanovic and Reed* (1981); **45.** *Kaczaral et al.* (1986); **46.** *Kallemeyn and Warren* (1983); **47.** *Kaplan and Petrowski* (1971); **48.** *Kaplan et al.* (1970); **49.** *Kerridge et al.* (1975a,b); **50.** *Korotev et al.* (1983); **51.** *Krähenbühl et al.* (1973); **52.** *Krähenbühl et al.*(1980); **53.** *Laul et al.* (1971); **54.** *Lindstrom et al.* (1986); **55.** *Maxwell et al.* (1970); **56.** *Meyer* (1978); **57.** *Moore et al.* (1972); **58.** *Moore et al.* (1974); **59.** *Morgan and Petrie* (1979); **60.** *Morgan et al.* (1972a); **61.** *Morgan et al.* (1972b); **62.** *Morgan et al.* (1973); **63.** *Morgan et al.* (1974); **64.** *Nunes and Tatsumoto* (1973); **65.** *Nunes et al.* (1973); **66.** *Nunes et al.* (1974a); **67.** *Nunes et al.* (1974b); **68.** *Nunes et al.* (1975); **69.** *Palme et al.* (1978); **70.** *Petrowski et al.* (1974); **71.** *Reed and Jovanovic* (1970); **72.** *Reed and Jovanovic* (1971); **73.** *Reed and Jovanovic* (1973a); **74.** *Reed et al.* (1972); **75.** *Rees and Thode* (1972); **76.** *Rees and Thode* (1974); **77.** *Rhodes and Hubbard* (1973); **78.** *Rhodes et al.* (1974); **79.** *Scoon* (1971); **80.** *Scoon* (1972); **81.** *Silver* (1970); **82.** *Silver* (1972); **83.** *J. W. Smith et al.* (1973); **84.** *Tatsumoto* (1970); **85.** *Tatsumoto et al.* (1971); **86.** *Tatsumoto et al.* (1972a); **87.** *Tatsumoto et al.* (1972b); **88.** *S. R. Taylor et al.* (1971); **89.** *S. R. Taylor et al.* (1972); **90.** *S. R. Taylor et al.* (1973a,b); **91.** *Tera and Wasserburg* (1972a); **92.** *Tera and Wasserburg* (1972b); **93.** *Tera et al.* (1972); **94.** *Unruh and Tatsumoto* (1978); **95.** *Verkouteren et al.* (1983); **96.** *Vinogradov* (1973); **97.** *Wänke et al.* (1970a); **98.** *Wänke et al.* (1971); **99.** *Wänke et al.*(1972); **100.** *Wänke et al.*(1973); **101.** *Wänke et al.*(1974); **102.** *Wänke et al.*(1975); **103.** *Wänke et al.*(1977); **104.** *Warren and Kallemeyn*(1986); **105.** *Wasson et al.*(1976); **106.** *Willis et al.*(1972).