

abund: set the Solar abundances

Set the abundance table used in the plasma emission and photoelectric absorption models.

Syntax: abund <option>

where <option> is:

angr, from Anders E. & Grevesse N. (1989, *Geochimica et Cosmochimica Acta* 53, 197)

aspl, from Asplund M., Grevesse N., Sauval A.J. & Scott P. (2009, *ARAA*, 47, 481)

feld, from Feldman U.(1992, *Physica Scripta* 46, 202 except for elements not listed which are given grsa abundances),

aneb, from Anders E. & Ebihara (1982, *Geochimica et Cosmochimica Acta* 46, 2363),

grsa from Grevesse, N. & Sauval, A.J. (1998, *Space Science Reviews* 85, 161)

wilm from Wilms, Allen & McCray (2000, *ApJ* 542, 914 except for elements not listed which are given zero abundance)

lodd, from Lodders, K (2003, *ApJ* 591, 1220)

file filename, where filename is an ASCII file containing 30 lines with one number on each line. All abundances are number relative to H.

The tables are:

Element	angr	aspl	feld	aneb	grsa	wilm	lodd
H	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00	1.00e+00
He	9.77e-02	8.51e-02	9.77e-02	8.01e-02	8.51e-02	9.77e-02	7.92e-02
Li	1.45e-11	1.12e-11	1.26e-11	2.19e-09	1.26e-11	0.00	1.90e-09
Be	1.41e-11	2.40e-11	2.51e-11	2.87e-11	2.51e-11	0.00	2.57e-11
B	3.98e-10	5.01e-10	3.55e-10	8.82e-10	3.55e-10	0.00	6.03e-10
C	3.63e-04	2.69e-04	3.98e-04	4.45e-04	3.31e-04	2.40e-04	2.45e-04
N	1.12e-04	6.76e-05	1.00e-04	9.12e-05	8.32e-05	7.59e-05	6.76e-05
O	8.51e-04	4.90e-04	8.51e-04	7.39e-04	6.76e-04	4.90e-04	4.90e-04
F	3.63e-08	3.63e-08	3.63e-08	3.10e-08	3.63e-08	0.00	2.88e-08
Ne	1.23e-04	8.51e-05	1.29e-04	1.38e-04	1.20e-04	8.71e-05	7.41e-05

Na	2.14e-06	1.74e-06	2.14e-06	2.10e-06	2.14e-06	1.45e-06	1.99e-06
Mg	3.80e-05	3.98e-05	3.80e-05	3.95e-05	3.80e-05	2.51e-05	3.55e-05
Al	2.95e-06	2.82e-06	2.95e-06	3.12e-06	2.95e-06	2.14e-06	2.88e-06
Si	3.55e-05	3.24e-05	3.55e-05	3.68e-05	3.35e-05	1.86e-05	3.47e-05
P	2.82e-07	2.57e-07	2.82e-07	3.82e-07	2.82e-07	2.63e-07	2.88e-07
S	1.62e-05	1.32e-05	1.62e-05	1.89e-05	2.14e-05	1.23e-05	1.55e-05
Cl	1.88e-07	3.16e-07	1.88e-07	1.93e-07	3.16e-07	1.32e-07	1.82e-07
Ar	3.63e-06	2.51e-06	4.47e-06	3.82e-06	2.51e-06	2.57e-06	3.55e-06
K	1.32e-07	1.07e-07	1.32e-07	1.39e-07	1.32e-07	0.00	1.29e-07
Ca	2.29e-06	2.19e-06	2.29e-06	2.25e-06	2.29e-06	1.58e-06	2.19e-06
Sc	1.26e-09	1.41e-09	1.48e-09	1.24e-09	1.48e-09	0.00	1.17e-09
Ti	9.77e-08	8.91e-08	1.05e-07	8.82e-08	1.05e-07	6.46e-08	8.32e-08
V	1.00e-08	8.51e-09	1.00e-08	1.08e-08	1.00e-08	0.00	1.00e-08
Cr	4.84e-07	4.37e-07	4.84e-07	4.93e-07	4.68e-07	3.24e-07	4.47e-07
Mn	2.45e-07	2.69e-07	2.45e-07	3.50e-07	2.45e-07	2.19e-07	3.16e-07
Fe	4.68e-05	3.16e-05	3.24e-05	3.31e-05	3.16e-05	2.69e-05	2.95e-05
Co	8.60e-08	9.77e-08	8.60e-08	8.27e-08	8.32e-08	8.32e-08	8.13e-08
Ni	1.78e-06	1.66e-06	1.78e-06	1.81e-06	1.78e-06	1.12e-06	1.66e-06
Cu	1.62e-08	1.55e-08	1.62e-08	1.89e-08	1.62e-08	0.00	1.82e-08
Zn	3.98e-08	3.63e-08	3.98e-08	4.63e-08	3.98e-08	0.00	4.27e-08