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## ADF16: generalised contribution functions

Provides generalised collisional radiative coefficients. Formatting conventions and variable storage are given below.

*Utilising subroutines :*

ADAS507

*Formatted files to ADF16 specification :*

Database Status                      Date = July, 30 1996                      Data type = gcf files                      Data root = /.../adas/adas/adf16/

<i>Element</i>	<i>Members</i>	<i>Prefix</i>	<i>Library</i>	<i>Comments</i>	<i>Resolution</i>	<i>Quality</i>
O	o	cds	gcf95#o	Demonstration dataset	j	unspecified

Notes:

*Data lines :*

*Format:*

NSEL, TEXT

for ISEL= 1 to NSEL

    WLNG , NVAL , ION , CODE , SCRIPT , TYPE , ISEL

    (TM(IT),IT=1,NVAL)

    (DENS(IT), IT=1,NVAL)

    (TE(IT), IT=1,NVAL)

    (GCF(IT), IT=1,NVAL)

repeat

*variable identification :*

<i>name</i>	<i>meaning</i>
NSEL	number of transitions available
TEXT	information
WLNG	wavelength of transition (Ang)
NVAL	number of values
CODE	processing code
SCRIPT	script file member name used in processing
TYPE	type of contribution function (line, band etc.)
ISEL	transition index
TM()	time (s) (if relevant otherwise counter)
DENS()	electron densities (cm-3)
TE()	electron temperatures (eV)
GCF()	generalised contribution functions (phot cm <sup>3</sup> s <sup>-1</sup> )

Table B16c

```

2 /HE GENERALISED CONTRIBUTION FUNCTIONS/
584.4 A 12 /HE+ 0/CODE= ADAS405/SCRIPT= SPL#HE /TYPE= LINE/ISEL = 1
1.00E+00 2.00E+00 3.00E+00 4.00E+00 5.00E+00 6.00E+00 7.00E+00 8.00E+00
9.00E+00 1.00E+01 1.10E+01 1.20E+00
1.00E+11 2.00E+11 5.00E+11 1.00E+12 2.00E+12 5.00E+12 1.00E+13 2.00E+13
5.00E+13 1.00E+14 2.00E+14 5.00E+14
1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 4.00E+01 5.00E+01
6.50E+01 8.00E+01 1.00E+02 1.50E+02
1.66E-17 3.16E-13 9.55E-11 6.54E-10 2.01E-09 3.10E-09 3.92E-09 4.54E-09
5.23E-09 5.71E-09 6.15E-09 6.74E-09
537.0 A 12 /HE+ 0/CODE= ADAS405/SCRIPT= SPL#HE /TYPE= LINE/ISEL = 2
1.00E+00 2.00E+00 3.00E+00 4.00E+00 5.00E+00 6.00E+00 7.00E+00 8.00E+00
9.00E+00 1.00E+01 1.10E+01 1.20E+00
1.00E+11 2.00E+11 5.00E+11 1.00E+12 2.00E+12 5.00E+12 1.00E+13 2.00E+13
5.00E+13 1.00E+14 2.00E+14 5.00E+14
1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 4.00E+01 5.00E+01
6.50E+01 8.00E+01 1.00E+02 1.50E+02
2.00E-19 1.14E-14 7.98E-12 8.49E-11 3.38E-10 5.71E-10 7.58E-10 9.06E-10
1.07E-09 1.19E-09 1.31E-09 1.46E-09
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C
C GENERALISED CONTRIBUTION FUNCTIONS
C
C SOURCE SPECIFIC ION FILE:/JETSHP.HELIKE.DATA(KVIL93HE)
C SOURCE IONIS. COEFFT. FILE:/JETSHP.<>CD93.RDATA
C
C ISEL WAVELENGTH ION TYPE TRANSITION

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C -----  
C 1 584.4 HE+ 0 LINE 2S2P(LP) - 1S2(1S)  
C 2. 537.0 HE+ 0 LINE 2S3P(LP) - 1S2(1S)  
C  
C NOTES: \*\*\* WARNING UNPHYSICAL DATA FOR LAYOUT DISPLAY \*\*\*  
C

C-----  
C H.P. SUMMERS 22/03/94  
C-----