

ADF10: iso-electronic master files

Isoelectronic master file data. Formatting conventions and variable storage are given below.

Utilising subroutines :

ADAS404

Formatted files to ADF10 specification :

Database Status Date = March 17, 2003 Data type = isoelectronic master files Data root = ../../adas/adas/adf10/

<i>Classes</i>	<i>Sequence</i>	<i>Directory</i>	<i>zI range</i>	<i>Comments</i>	<i>Resolution</i>	<i>Quality</i>
acd, scd	al,ar,b,be,c,cl,f,h,he, li,mg,n,na,ne,o,p,s,si	<class>74	2-19	Summers, c-r	unresolved	medium
acd, scd, xcd, qcd, prb, plt, met	h,he,li,be,b,c,n,o	<class>93	1-8	ADAS208, c-r	LS	medium
acd, scd	v, cr, nb, mo	<class>93	0-1	ADAS208, c-r	LS	medium
acd, scd, ccd, xcd, qcd, prb, plt, prc, met	h,he,li,be,b,c,n,o	<class>96	1-10	ADAS208, c-r	LS	high

- Notes:
1. Summers denotes Summers (1974) Appleton Laboratory Report IM3657.
 2. c-r denotes collisional radiative data with density dependence.
 3. LS resolved datasets have the notation <seq><metp><met>.dat where <seq> denotes the isoelectronic sequence, <metp> denotes the recombining ion (parent) metastable index and <met> denotes the recombined ion metastable index.
 4. The 1996 data is the year number used for the output from the GCR Project. The 1996 data has extended temperature and density ranges and improved low level data. They supercedes the 1993 data.
 5. 24 Oct. 1999 revisions include replacement of the whole /prb96 due to an altered format prescription. The previous form has been moved to /prb96_old. There are updates of all the asd10 classes to include nitrogen and oxygen ions and to update helium and carbon ions.

Data lines :

Partial file - class 1-7

IPRT, TRMPRT, SPNPRT, NCTPRT, IGRD, SPNSYS, SSYWT

IZE, ITE, IDE [, CPOT]

(ZIPT(IZ),IZ=1,IZE)

[(EIA(I),I=1,IPOT)] class 2 only

(DENSR(ID),ID=1,IDE)

(TR(IT),IT=1,ITE)

Format:

```
for IZ=1,IZE
  IPRT, IGRD, IZ1, DATE
  for IT=1,ITE
    (AIPT(ID,IT,IZ), ID=1,IDE)
  repeat
repeat
```

Standard file

```
IZE, ITE, IDE [, CPOT]
(ZIPT(IZ),IZ=1,IZE)
[ (EIA(I),I=1,IPOT) ] classes 2, 8 & 9 only
(DENSR(ID),ID=1,IDE)
(TR(IT),IT=1,ITE)
for IZ=1,IZE
  IZ1, DATE
  for IT=1,ITE
    (AIPT(ID,IT,IZ), ID=1,IDE)
  repeat
repeat
```

Partial file - class 8-9

```
NMET
(IORD(I),I=1,NMET)
(DESIG(I),I=1,NMET)
(CPIND(I),I=1,NMET)
(PRTREF(I),I=1,NMET)
(SPNREF(I),I=1,NMET)
IZE, ITE, IDE [, CPOT]
(ZIPT(IZ),IZ=1,IZE)
[ (EIA(I),I=1,IPOT) ] classes 8 & 9 only
(DENSR(ID),ID=1,IDE)
```

```

(TR(IT),IT=1,ITE)
for IZ=1,IZE
  for I=1,NMET
    IMET
    for IT=1,ITE
      (AIPT(ID,IT,IZ), ID=1,IDE)
    repeat
  repeat
repeat

```

variable identification :

<i>name</i>	<i>meaning</i>
IPRT	index of parent metastable
TRMPRT	parent term
SPNPRT	parent spin (multiplicity)
NCTPRT	n-shell cut-off for parent based levels
IGRD	index of recombined ion metastable
SPNSYS	spin system (multiplicity)
SSYWT	spin system fractional weighting factor
NMET	number of metastables
IORD()	order of listing for metastables
DESIG()	designation of metastables
CPIND()	specific ion file index referencing for metastables
PRTREF()	parent reference (unset)
SPNREF()	parent spin reference (unset)
IZE	number of sequence members
ITE	number of temperatures
IDE	number of densities
CPOT	number of ionisation potentials given for sequence

ZIPT()	recombining ion charges
EIA()	ionisation potentials (cm-1)
DENSR()	z-scaled (reduced) densities (cm-3)
TR()	z-scaled (reduced) temperatures (K)
IZ1	recombining ion charge
DATE	date
IMET	metastable index
AIPT(,,)	generalised collisional radiative coefficients (units according to class)

Table B10c - partial file - class 2

```

=====
IPRT= 1 TRMPRT=(2S) SPNPRT= 2. NCTPRT=1000 IGRD= 1 SPNSYS= 1. SSWT= 0.25
-----
      3      11      8      50
      1.00000      3.00000      5.00000
-----
      75192.1      202887.4      386241.0      624866.0      918657.0      1267622.0
      1671792.0      2130800.0      2647400.0      3221080.0      3839800.0      4520100.0
      5255900.0      6047200.0      6894200.0      7810000.0      8770000.0      9780000.0
      10860000.0      11990000.0      13180000.0      14420000.0      15730000.0      17090000.0
      18510000.0      19830000.0      21350000.0      22900000.0      24530000.0      26200000.0
      27930000.0      29710000.0      31550000.0      33496000.0      35544000.0      37693000.0
      39943000.0      42290000.0      44730000.0      47258000.0      49867000.0      52547000.0
      55286000.0      58073000.0      60890000.0      63721000.0      66546000.0      69241000.0
      72081000.0      74740000.0
-----
      1.00D-03      1.00D+00      1.00D+03      1.00D+06      1.00D+09      1.00D+12      1.00D+15      1.00D+18
      1.00D+03      2.00D+03      5.00D+03      1.00D+04      2.00D+04      5.00D+04      1.00D+05      2.00D+05
      5.00D+05      1.00D+06      2.00D+06
-----
      / IPRT= 1 / IGRD= 1 / Z1= 1 / DATE=05/03/93
      1.96D-55      1.96D-55      1.96D-55      2.19D-55      1.30D-53      4.51D-49      8.59D-46      1.31D-45
      6.10D-32      6.10D-32      6.10D-32      6.57D-32      1.15D-31      1.28D-29      1.36D-26      2.38D-26
      7.59D-18      7.59D-18      7.60D-18      7.95D-18      1.15D-17      5.05D-17      6.97D-15      1.26D-14
      3.79D-13      3.79D-13      3.79D-13      3.91D-13      5.18D-13      1.50D-12      3.52D-11      6.00D-11
      1.22D-10      1.22D-10      1.22D-10      1.23D-10      1.44D-10      2.86D-10      2.30D-09      3.96D-09
      5.89D-09      5.89D-09      5.89D-09      5.92D-09      6.27D-09      8.74D-09      3.59D-08      5.64D-08
      2.44D-08      2.44D-08      2.44D-08      2.44D-08      2.51D-08      3.09D-08      1.07D-07      1.52D-07
      5.34D-08      5.34D-08      5.34D-08      5.35D-08      5.44D-08      6.24D-08      1.97D-07      2.62D-07
      8.71D-08      8.71D-08      8.71D-08      8.72D-08      8.80D-08      9.58D-08      2.79D-07      3.60D-07
      9.96D-08      9.96D-08      9.96D-08      9.97D-08      1.00D-07      1.07D-07      2.84D-07      3.69D-07
      1.01D-07      1.01D-07      1.01D-07      1.01D-07      1.01D-07      1.06D-07      2.68D-07      3.54D-07
-----
      / IPRT= 1 / IGRD= 1 / Z1= 3 / DATE=07/03/93
      3.43D-36      3.43D-36      3.44D-36      3.89D-36      1.10D-35      1.06D-31      2.88D-29      2.94D-29
      1.00D-22      1.00D-22      1.01D-22      1.08D-22      1.93D-22      2.57D-20      6.77D-18      6.99D-18
      1.68D-14      1.68D-14      1.68D-14      1.73D-14      2.23D-14      1.68D-13      2.10D-11      2.21D-11
      1.07D-11      1.07D-11      1.07D-11      1.09D-11      1.26D-11      3.82D-11      1.62D-09      1.69D-09
      3.06D-10      3.06D-10      3.06D-10      3.08D-10      3.33D-10      6.66D-10      1.07D-08      1.10D-08
      2.53D-09      2.53D-09      2.53D-09      2.54D-09      2.64D-09      4.07D-09      3.11D-08      3.17D-08
      5.29D-09      5.29D-09      5.29D-09      5.30D-09      5.44D-09      7.53D-09      4.31D-08      4.38D-08
      7.57D-09      7.57D-09      7.57D-09      7.58D-09      7.72D-09      9.93D-09      4.74D-08      4.81D-08
      8.84D-09      8.84D-09      8.84D-09      8.84D-09      8.95D-09      1.08D-08      4.54D-08      4.61D-08
      8.65D-09      8.65D-09      8.65D-09      8.65D-09      8.74D-09      1.02D-08      4.11D-08      4.18D-08
      7.81D-09      7.81D-09      7.81D-09      7.82D-09      7.88D-09      8.96D-09      3.60D-08      3.67D-08
-----
      / IPRT= 1 / IGRD= 1 / Z1= 5 / DATE=16/03/93
      6.65D-33      6.65D-33      6.66D-33      7.78D-33      2.53D-32      6.93D-29      7.77D-27      7.94D-27
      2.78D-21      2.78D-21      2.78D-21      3.00D-21      5.48D-21      5.25D-19      6.26D-17      6.49D-17
      3.24D-14      3.24D-14      3.24D-14      3.33D-14      4.32D-14      4.35D-13      1.87D-11      1.94D-11
      8.42D-12      8.42D-12      8.42D-12      8.54D-12      9.85D-12      4.92D-11      7.80D-10      7.97D-10
      1.49D-10      1.49D-10      1.49D-10      1.50D-10      1.63D-10      5.76D-10      4.50D-09      4.56D-09
      9.00D-10      9.00D-10      9.00D-10      9.03D-10      9.43D-10      2.56D-09      1.22D-08      1.23D-08
      1.66D-09      1.66D-09      1.66D-09      1.67D-09      1.72D-09      4.02D-09      1.60D-08      1.61D-08
      2.21D-09      2.21D-09      2.21D-09      2.22D-09      2.26D-09      4.69D-09      1.69D-08      1.70D-08
      2.45D-09      2.45D-09      2.45D-09      2.45D-09      2.49D-09      4.48D-09      1.55D-08      1.56D-08

```

Table B10e - partial file - class 8

```

=====
NMET          = 2
ORDER         =                1          2
DESIGNATION   = 2S2 (1S)      2S2P (3P)
COPDAT INDEX =                1          2
PARENT REF.  =                *          *
SPNSYS REF.  =                *          *
=====
      3      11      8
      1.00000  3.00000  5.00000
=====
1.00D-03  1.00D+00  1.00D+03  1.00D+06  1.00D+09  1.00D+12  1.00D+15  1.00D+18
1.00D+03  2.00D+03  5.00D+03  1.00D+04  2.00D+04  5.00D+04  1.00D+05  2.00D+05
5.00D+05  1.00D+06  2.00D+06
----- TOTAL LINE POWER -----/ Z1= 1 / DATE= 05/03/93
/1/
4.00D-45  4.00D-45  4.00D-45  4.00D-45  4.00D-45  3.99D-45  1.63D-45  2.76D-48
6.76D-32  6.76D-32  6.76D-32  6.76D-32  6.76D-32  6.75D-32  3.42D-32  6.90D-35
5.35D-24  5.35D-24  5.35D-24  5.35D-24  5.35D-24  5.35D-24  3.31D-24  8.77D-27
2.46D-21  2.46D-21  2.46D-21  2.46D-21  2.46D-21  2.45D-21  1.50D-21  4.48D-24
6.79D-20  6.79D-20  6.79D-20  6.79D-20  6.78D-20  6.67D-20  3.57D-20  1.00D-22
6.51D-19  6.51D-19  6.51D-19  6.50D-19  6.48D-19  6.29D-19  2.74D-19  6.10D-22
1.56D-18  1.56D-18  1.56D-18  1.56D-18  1.56D-18  1.51D-18  5.43D-19  1.00D-21
2.50D-18  2.50D-18  2.50D-18  2.50D-18  2.49D-18  2.42D-18  7.47D-19  1.22D-21
3.21D-18  3.21D-18  3.21D-18  3.21D-18  3.21D-18  3.13D-18  9.22D-19  1.42D-21
3.16D-18  3.16D-18  3.16D-18  3.16D-18  3.16D-18  3.10D-18  9.68D-19  1.52D-21
2.96D-18  2.96D-18  2.96D-18  2.96D-18  2.95D-18  2.91D-18  9.89D-19  1.61D-21
/2/
1.34D-11  1.34D-14  1.34D-17  1.34D-20  1.34D-23  1.34D-26  1.35D-29  1.36D-32
1.34D-11  1.34D-14  1.34D-17  1.34D-20  1.39D-23  5.18D-25  2.55D-25  5.15D-28
1.34D-11  1.34D-14  1.34D-17  1.56D-20  2.24D-21  2.22D-21  1.36D-21  3.66D-24
1.34D-11  1.34D-14  1.34D-17  5.10D-20  3.76D-20  3.74D-20  2.10D-20  7.38D-23
1.34D-11  1.34D-14  1.36D-17  1.93D-19  1.79D-19  1.74D-19  7.55D-20  3.64D-22
1.34D-11  1.34D-14  1.40D-17  5.88D-19  5.71D-19  5.36D-19  1.92D-19  8.78D-22
1.34D-11  1.34D-14  1.44D-17  1.05D-18  1.03D-18  9.68D-19  3.42D-19  1.16D-21
1.34D-11  1.34D-14  1.49D-17  1.51D-18  1.49D-18  1.40D-18  4.90D-19  1.35D-21
1.34D-11  1.34D-14  1.53D-17  1.88D-18  1.86D-18  1.78D-18  6.14D-19  1.49D-21
1.34D-11  1.34D-14  1.52D-17  1.78D-18  1.76D-18  1.69D-18  5.96D-19  1.48D-21
1.34D-11  1.34D-14  1.50D-17  1.59D-18  1.57D-18  1.52D-18  5.56D-19  1.46D-21
----- TOTAL LINE POWER -----/ Z1= 3 / DATE= 05/03/93
/1/
5.43D-25  5.43D-25  5.43D-25  5.43D-25  5.43D-25  4.23D-25  1.91D-27  1.92D-30
1.42D-21  1.42D-21  1.42D-21  1.42D-21  1.42D-21  1.18D-21  6.79D-24  6.82D-27
1.34D-19  1.34D-19  1.34D-19  1.34D-19  1.34D-19  1.19D-19  1.09D-21  1.11D-24
5.67D-19  5.67D-19  5.67D-19  5.67D-19  5.67D-19  5.28D-19  8.95D-21  9.17D-24
1.14D-18  1.14D-18  1.14D-18  1.14D-18  1.14D-18  1.11D-18  2.48D-20  2.54D-23
1.67D-18  1.67D-18  1.67D-18  1.67D-18  1.67D-18  1.65D-18  4.02D-20  4.10D-23
1.76D-18  1.76D-18  1.76D-18  1.76D-18  1.75D-18  1.75D-18  4.42D-20  4.49D-23
1.63D-18  1.63D-18  1.63D-18  1.63D-18  1.62D-18  1.62D-18  4.42D-20  4.49D-23
1.36D-18  1.36D-18  1.36D-18  1.36D-18  1.36D-18  1.36D-18  4.33D-20  4.42D-23
1.16D-18  1.16D-18  1.16D-18  1.16D-18  1.16D-18  1.16D-18  4.35D-20  4.45D-23
9.88D-19  9.88D-19  9.88D-19  9.88D-19  9.87D-19  9.93D-19  4.45D-20  4.57D-23

```

```

/2/
1.52D-10 1.52D-13 1.52D-16 1.53D-19 3.64D-22 1.65D-22 7.44D-25 7.47D-28
1.52D-10 1.52D-13 1.52D-16 1.63D-19 1.11D-20 9.04D-21 5.23D-23 5.26D-26
1.52D-10 1.52D-13 1.53D-16 3.19D-19 1.66D-19 1.46D-19 1.45D-21 1.47D-24
1.52D-10 1.52D-13 1.53D-16 6.10D-19 4.58D-19 4.19D-19 7.37D-21 7.57D-24
1.52D-10 1.52D-13 1.53D-16 9.46D-19 7.93D-19 7.37D-19 1.54D-20 1.58D-23
1.52D-10 1.52D-13 1.53D-16 1.24D-18 1.08D-18 1.00D-18 2.09D-20 2.13D-23
1.52D-10 1.52D-13 1.53D-16 1.29D-18 1.13D-18 1.04D-18 2.21D-20 2.26D-23
1.52D-10 1.52D-13 1.53D-16 1.22D-18 1.07D-18 9.83D-19 2.22D-20 2.27D-23
1.52D-10 1.52D-13 1.53D-16 1.07D-18 9.16D-19 8.52D-19 2.24D-20 2.29D-23
1.52D-10 1.52D-13 1.53D-16 9.54D-19 8.00D-19 7.50D-19 2.28D-20 2.34D-23
1.52D-10 1.52D-13 1.53D-16 8.47D-19 6.93D-19 6.56D-19 2.34D-20 2.43D-23
----- TOTAL LINE POWER -----/ z1= 5 / DATE= 16/03/93
/1/
5.03D-22 5.03D-22 5.03D-22 5.03D-22 5.02D-22 1.59D-22 2.32D-25 2.32D-28
3.55D-20 3.55D-20 3.55D-20 3.55D-20 3.54D-20 1.40D-20 2.30D-23 2.30D-26
3.76D-19 3.76D-19 3.76D-19 3.76D-19 3.76D-19 2.02D-19 5.47D-22 5.53D-25
7.54D-19 7.54D-19 7.54D-19 7.54D-19 7.53D-19 5.26D-19 3.36D-21 3.41D-24
1.05D-18 1.05D-18 1.05D-18 1.05D-18 1.04D-18 9.05D-19 8.61D-21 8.73D-24
1.18D-18 1.18D-18 1.18D-18 1.17D-18 1.17D-18 1.17D-18 1.28D-20 1.29D-23
1.11D-18 1.11D-18 1.11D-18 1.11D-18 1.11D-18 1.11D-18 1.15D-18 1.31D-20 1.33D-23
9.77D-19 9.77D-19 9.77D-19 9.77D-19 9.75D-19 1.03D-18 1.26D-20 1.27D-23
7.92D-19 7.92D-19 7.92D-19 7.92D-19 7.91D-19 8.49D-19 1.22D-20 1.23D-23
6.69D-19 6.69D-19 6.69D-19 6.69D-19 6.68D-19 7.25D-19 1.24D-20 1.26D-23
5.65D-19 5.65D-19 5.65D-19 5.65D-19 5.64D-19 6.18D-19 1.30D-20 1.32D-23
/2/
1.51D-10 1.51D-13 1.51D-16 1.56D-19 5.01D-21 1.49D-21 2.15D-24 2.16D-27
1.51D-10 1.51D-13 1.51D-16 2.09D-19 5.79D-20 2.09D-20 3.31D-23 3.31D-26
1.51D-10 1.51D-13 1.51D-16 4.26D-19 2.75D-19 1.28D-19 4.66D-22 4.75D-25
1.51D-10 1.51D-13 1.52D-16 6.20D-19 4.69D-19 2.78D-19 2.40D-21 2.46D-24
1.51D-10 1.51D-13 1.52D-16 7.96D-19 6.44D-19 4.49D-19 4.76D-21 4.84D-24
1.51D-10 1.51D-13 1.52D-16 9.19D-19 7.64D-19 5.81D-19 6.39D-21 6.49D-24
1.51D-10 1.51D-13 1.52D-16 9.09D-19 7.54D-19 5.89D-19 6.63D-21 6.73D-24
1.51D-10 1.51D-13 1.52D-16 8.48D-19 6.93D-19 5.53D-19 6.67D-21 6.77D-24
1.51D-10 1.51D-13 1.52D-16 7.41D-19 5.88D-19 4.84D-19 6.84D-21 6.96D-24
1.51D-10 1.51D-13 1.52D-16 6.62D-19 5.09D-19 4.30D-19 7.14D-21 7.29D-24
1.51D-10 1.51D-13 1.52D-16 5.90D-19 4.37D-19 3.79D-19 7.59D-21 7.79D-24

```

Table B10e - standard file

5	10	8	50					
2.00000	3.00000	5.00000	9.00000	19.00000				

198305.0	610079.0	1240815.0	2091618.0	3162477.0	4453397.0			
5964387.0	7695434.0	9646532.0	11817690.0	14208910.0	16820190.0			
19651550.0	22702940.0	25974410.0	29465950.0	33177500.0	37109150.0			
41260860.0	45632640.0	50224460.0	55036330.0	60068320.0	65320270.0			
70792410.0	76484540.0	82396700.0	88528940.0	94881210.0	101453600.0			
108246006.6	115258471.7	122490993.6	129943572.2	137616207.7	145508899.9			
153621648.9	161954454.8	170507317.4	179280236.8	188273213.1	197486246.1			
206919335.9	216572482.5	226445685.9	236538946.1	246852263.1	257385636.9			
268139067.4	279112554.8							

1.00D-03	1.00D+00	1.00D+03	1.00D+06	1.00D+09	1.00D+12	1.00D+15	1.00D+18	
5.00D+03	1.00D+04	2.00D+04	5.00D+04	1.00D+05	2.00D+05	5.00D+05	1.00D+06	
2.00D+06	5.00D+06							

/ Z = 2 / DATE= ???.?.1974								
7.85D-29	7.85D-29	7.87D-29	7.99D-29	8.87D-29	2.40D-28	8.50D-26	1.02D-24	
4.01D-19	4.01D-19	4.01D-19	4.04D-19	4.04D-19	4.25D-19	6.81D-19	4.16D-17	1.63D-16
3.47D-14	3.49D-14	3.49D-14	3.49D-14	3.57D-14	4.48D-14	5.91D-13	1.15D-12	
4.06D-11	4.06D-11	4.06D-11	4.07D-11	4.11D-11	4.51D-11	1.63D-10	2.22D-10	
4.88D-10	4.88D-10	4.88D-10	4.88D-10	4.90D-10	5.16D-10	1.11D-09	1.35D-09	
1.81D-09	1.81D-09	1.81D-09	1.81D-09	1.81D-09	1.87D-09	3.09D-09	3.54D-09	
4.09D-09	4.09D-09	4.09D-09	4.09D-09	4.10D-09	4.18D-09	5.86D-09	6.51D-09	
5.27D-09	5.27D-09	5.27D-09	5.27D-09	5.28D-09	5.36D-09	7.02D-09	7.72D-09	
5.66D-09	5.66D-09	5.66D-09	5.66D-09	5.67D-09	5.74D-09	7.22D-09	7.95D-09	
5.24D-09	5.24D-09	5.24D-09	5.24D-09	5.25D-09	5.31D-09	6.44D-09	7.14D-09	

/ Z = 3 / DATE= ???.?.1974								
2.03D-27	2.03D-27	2.04D-27	2.07D-27	2.30D-27	6.72D-27	2.88D-24	2.30D-23	
1.26D-18	1.26D-18	1.26D-18	1.27D-18	1.33D-18	2.24D-18	1.72D-16	6.19D-16	
3.78D-14	3.78D-14	3.78D-14	3.80D-14	3.89D-14	5.03D-14	8.42D-13	1.62D-12	
2.31D-11	2.31D-11	2.31D-11	2.31D-11	2.33D-11	2.59D-11	1.15D-10	1.59D-10	
2.19D-10	2.19D-10	2.19D-10	2.20D-10	2.20D-10	2.34D-10	5.97D-10	7.37D-10	
7.16D-10	7.16D-10	7.16D-10	7.16D-10	7.20D-10	7.46D-10	1.39D-09	1.62D-09	
1.48D-09	1.48D-09	1.48D-09	1.48D-09	1.48D-09	1.51D-09	2.32D-09	2.62D-09	
1.83D-09	1.83D-09	1.83D-09	1.83D-09	1.83D-09	1.86D-09	2.62D-09	2.94D-09	
1.91D-09	1.91D-09	1.91D-09	1.91D-09	1.92D-09	1.95D-09	2.61D-09	2.93D-09	
1.73D-09	1.73D-09	1.73D-09	1.73D-09	1.73D-09	1.76D-09	2.25D-09	2.56D-09	

/ Z = 5 / DATE= ???.?.1974								
1.44D-26	1.44D-26	1.45D-26	1.47D-26	1.63D-26	5.11D-26	2.28D-23	1.38D-22	
1.73D-18	1.73D-18	1.73D-18	1.74D-18	1.83D-18	3.21D-18	2.69D-16	8.93D-16	
2.28D-14	2.28D-14	2.29D-14	2.29D-14	2.34D-14	3.09D-14	5.93D-13	1.12D-12	
8.35D-12	8.35D-12	8.35D-12	8.37D-12	8.45D-12	9.50D-12	4.86D-11	6.72D-11	
6.63D-11	6.63D-11	6.63D-11	6.64D-11	6.67D-11	7.13D-11	2.07D-10	2.58D-10	
1.96D-10	1.96D-10	1.96D-10	1.96D-10	1.96D-10	2.04D-10	4.31D-10	5.11D-10	
3.76D-10	3.76D-10	3.76D-10	3.76D-10	3.77D-10	3.87D-10	6.48D-10	7.44D-10	
4.49D-10	4.49D-10	4.49D-10	4.49D-10	4.50D-10	4.60D-10	6.99D-10	7.99D-10	
4.60D-10	4.60D-10	4.60D-10	4.60D-10	4.61D-10	4.70D-10	6.73D-10	7.73D-10	
4.08D-10	4.08D-10	4.08D-10	4.08D-10	4.09D-10	4.16D-10	5.66D-10	6.58D-10	

/ Z = 9 / DATE= ???.?.1974								
2.43D-26	2.43D-26	2.43D-26	2.47D-26	2.75D-26	9.01D-26	3.98D-23	2.04D-22	
1.00D-18	1.00D-18	1.01D-18	1.01D-18	1.06D-18	1.91D-18	1.64D-16	5.14D-16	
7.72D-15	7.72D-15	7.72D-15	7.76D-15	7.95D-15	1.06D-14	2.13D-13	3.96D-13	
2.02D-12	2.02D-12	2.02D-12	2.03D-12	2.05D-12	2.32D-12	1.28D-11	1.76D-11	