

ADAS Subroutine cxqcx

```
SUBROUTINE CXQCX(DSNIN , NEIN , EIN ,  
&                INSEL , ILSEL ,  
&                CXOUT , LEXT )
```

```
C-----  
C  
C ***** FORTRAN 77 SUBROUTINE: CXQCX *****  
C  
C PURPOSE: Gathers data from adf01 charge exchange files and  
C           interpolates on the requested energy vector.  
C  
C  
C INPUT  
C  
C (C*80) DSNIN      : adf01 file name.  
C (R*8)  NEIN      : NUMBER OF USER REQUESTED ENERGIES  
C                   UNITS: EV/AMU  
C (R*8)  EIN       : USER REQUESTED ENERGIES  
C (I*4)  INSEL     : SELECTED INPUT DATA n QUANTUM SHELL - 0 for total  
C (I*4)  ILSEL     : SELECTED INPUT DATA l QUANTUM SHELL  
C  
C  
C  
C OUTPUT  
C  
C (R*8)  CXOUT()   : CROSS SECTION DATA  
C                   UNITS: CM**2  
C (L*4)  LEXT()    : .TRUE. IF INTEPOLATED  
C  
C  
C PROGRAM:  
C  
C  
C ROUTINES:  
C  
C   ROUTINE      SOURCE      BRIEF DESCRIPTION  
C   -----  
C   CXDATA       ADAS        READS INPUT DATA SET IN ADF01 FORMAT.  
C   C1BSIG       ADAS        SETS UP X-SECTIONS FOR SELECTED N-SHELL  
C   XXSPLE       ADAS        SPLINE SUBROUTINE (EXTENDED DIAGNOSTICS)  
C   R8FUN1       ADAS        REAL*8 FUNCTION: ( X -> X )  
C  
C  
C NOTE          : Depending on the choice of output cross section the  
C                 appropriate n,l or m value must be present.  
C  
C  
C VERSION      : 1.1  
C DATE         : 18-01-2001  
C AUTHOR       : Martin O'Mullane  
C  
C DATE         : 14-03-2007
```

C VERSION : 1.2
C MODIFIED : Martin O'Mullane
C - Increase maximum number of shells to 100.
C - Use xxdata_01 to read in adf01 dataset.
C
C VERSION : 1.3
C DATE : 22-05-2007
C MODIFIED : Martin O'Mullane
C - Remove unused m-subshell data possibility.
C
C-----

CHARACTER*80	DSNIN		
INTEGER	ILSEL,	INSEL,	NEIN
LOGICAL	LEXT (NEIN)		
REAL*8	CXOUT (NEIN), EIN (NEIN)		