

ADAS Subroutine axltsq

SUBROUTINE AXLTSQ(IT,C,E12,GF,N,T,U,B,RMS)

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C-----
C ***** FORTRAN77 SUBROUTINE: AXLTSQ *****
C
C PURPOSE: TO PERFORM FIVE POINT SPLINE FIT TO REDUCED OMEGAS OR
C          UPSILONS
C
C INPUT:
C          E12  TRANSITION ENERGY  (RYD)
C          GF   GF
C          IT   TRANSITION TYPE
C          T    ENERGY OR TEMPERATURE
C          U    OMEGA OR UPSILON
C          N    NUMBER OF DATA POINTS
C          C    C PARAMETER
C
C COMMON:
C          /BURG/
C          LUPSIL   = .TRUE.  (UPSILON FITTING)
C                  .FALSE. (OMEGA FITTING )
C
C OUTPUT:
C          B      KNOTS VALUES
C
C LOCAL VARIABLES/CONSTANTS:
C
C          A(,)
C          V
C          W
C          Y()
C          XX
C          YY
C
C CALLS:
C          SPLS      - CALCULATE CUBIC SPLINE FIT COEFFICIENTS
C          AXETRD    - CALCULATE REDUCED ENERGIES OR TEMPERATURES
C          AXOURD    - CALCULATE REDUCED OMEGAS OR UPSILONS
C          MATIN1    - INVERT MATRIX TO GET KNOT POINTS
C          ONE       - GET KNOT POINTS IF ONLY ONE DATA POINT
C          TWO       - GET KNOT POINTS IF ONLY TWO DATA POINTS
C          THREE     - GET KNOT POINTS IF ONLY THREE DATA POINTS
C          FOUR      - GET KNOT POINTS IF ONLY FOUR DATA POINTS
C
C DATE: 24-11-96 VERSION 1.1
C WRITTEN: CONVERSION OF LSTSQ BY A.LANZAFAME & D.H.BROOKS BY
C          HUGH P. SUMMERS, UNIVERSITY OF STRATHCLYDE
C          TEL. 0141-553-4196
C
C DATE: 24 NOVEMBER 1996
C
C MODIFICATION HISTORY:
C
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C VERSION: 1.1 HUGH SUMMERS 24/11/96

C MODIFIED: FIRST RELEASE.

C-----

INTEGER	IT,	N		
REAL*8	B(5),	C,	E12,	GF
REAL*8	RMS,	T(N),	U(N)	