

ADAS Subroutine axourdv

FUNCTION AXOURDV(IXTYP , EIJ , EJ , DGEY , C)

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C
C ***** FORTRAN 77 FUNCTION: AXOURDV *****
C
C PURPOSE: TO CALCULATE THE COLLISION STRENGTH OR UPSILON FROM THE
C REDUCED COLLISION STRENGTH OR REDUCED UPSILON
C FOR FOUR TYPES OF TRANSITION
C
C CALLING PROGRAM:
C
C FUNCTION:
C
C INPUT: (R*8) EIJ = TRANSITION ENERGY (Eij)
C (R*8) EJ = COLLIDING ELECTRON ENERGY AFTER
C EXCITATION (Ej)
C (R*8) C = ADJUSTABLE SCALING PARAMETER
C (R*8) ETR = Ej/Eij
C (I) IXTYPE = TRANSITION TYPE
C 1 ELECTRIC DIPOLE
C 2 NON ELECTRIC DIPOLE
C 3 SPIN CHANGE
C 4 OTHER
C (R*8) DGEY = REDUCED COLLISION STRENGTH
C
C COMMON:
C /BURG/
C (L*4) LUPSIL = .TRUE. (UPSILON FITTING)
C .FALSE. (OMEGA FITTING)
C
C OUTPUT: (R*8) AXOURD = REDUCED COLLISION STRENGTH OR UPSILON
C
C
C ROUTINES: NONE
C
C WRITTEN: CONVERSION OF OUREDINV BY A.LANZAFAME & D.H.BROOKS BY
C HUGH P. SUMMERS, UNIVERSITY OF STRATHCLYDE
C TEL. 0141-553-4196
C
C DATE: 24/11/96 VERSION 1.1
C
C MODIFICATION HISTORY:
C
C VERSION: 1.1 HUGH SUMMERS 24/11/96
C MODIFIED: FIRST RELEASE.
C
C

INTEGER IXTYP
REAL*8 C, DGEY, EIJ, EJ