

ADAS Subroutine axourd

FUNCTION AXOURD(KTYPE, EIJ , EJ , OMUP , C)

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C
C ***** FORTRAN 77 FUNCTION: AXOURD *****
C
C PURPOSE:  TO CALCULATE THE REDUCED COLLISION STRENGTH OR REDUCED
C           UPSILON AS A FUNCTION OF  $E_j/E_{ij}$  OR  $k_{Te}/E_{ij}$  FOR FOUR
C           TYPES OF TRANSITION
C
C CALLING PROGRAM:  VARIOUS ADAS101  AND ADAS102 ROUTINES
C
C FUNCTION:
C
C INPUT:      (R*8)   EIJ   =  TRANSITION ENERGY ( $E_{ij}$ )
C             (R*8)   EJ    =  COLLIDING ELECTRON ENERGY AFTER
C                       EXCITATION ( $E_j$ )
C             (R*8)   C     =  ADJUSTABLE SCALING PARAMETER
C             (R*8)   ETR   =   $E_j/E_{ij}$  OR  $k_{Te}/E_{ij}$ 
C             (R*8)   OMUP  =  COLLISION STRENGTH OR UPSILON
C                       AS A FUNCTION
C                       OF ETR
C             (I)    KTYPE  =  TRANSITION TYPE
C                       1 ELECTRIC DIPOLE
C                       2 NON ELECTRIC DIPOLE
C                       3 SPIN CHANGE
C                       4 OTHER
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 ROUTINES:  NONE
C
C WRITTEN:    CONVERSION OF OURED 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
C           INTEGER          KTYPE
C           REAL*8          C,          EIJ,          EJ,          OMUP
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