

ADAS Subroutine oured9

FUNCTION OURED9(KTYPE, EIJ , EJ , OMUP , B , C)

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C
C ***** FORTRAN 77 FUNCTION: OURED9 *****
C
C PURPOSE: TO CALCULATE THE REDUCED COLLISION STRENGTH AS A FUNCTION
C OF E_j/E_{ij} FOR EIGHT TYPES OF TRANSITION
C
C CALLING PROGRAM: VARIOUS ADAS108 ROUTINES
C
C FUNCTION:
C
C INPUT: (R*8) EIJ = TRANSITION ENERGY (RYD)
C (R*8) EJ = COLLIDING ELECTRON ENERGY AFTER
C EXCITATION (RYD)
C (R*8) C = BURGESS SCALING PARAMETER -C
C (R*8) C = BURGESS SCALING PARAMETER -C
C (R*8) ETR = E_j/E_{ij}
C (R*8) OMUP = COLLISION STRENGTH AS A FUNCTION
C OF ETR
C (I*4) KTYPE = TRANSITION TYPE
C 1 ELECTRIC DIPOLE - EXP THRESHOLD
C 2 NON ELECTRIC DIPOLE - EXP THRESHOLD
C 3 SPIN CHANGE - EXP THRESHOLD
C 4 OTHER - EXP THRESHOLD
C 5 ELECTRIC DIPOLE - POWER THRESHOLD
C 6 NON ELECTRIC DIPOLE - POWER THRESHOLD
C 7 SPIN CHANGE - POWER THRESHOLD
C 8 OTHER - POWER THRESHOLD
C
C OUTPUT: (R*8) OURED9 = REDUCED COLLISION STRENGTH
C
C (I*4) IASYMC = ASYMPTOTIC CLASSIFICATION TYPE
C (I*4) ITHRSC = THRESHOLD CLASSIFICATION TYPE
C (R*8) E0 = SWITCHING ENERGY
C
C ROUTINES: NONE
C
C DATE: 17/06/99 VERSION 1.1
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INTEGER KTYPE
REAL*8 B, C, EIJ, EJ
REAL*8 OMUP