

## ADAS Subroutine etred9

FUNCTION ETRED9( KTYPE , E , T , B , C )

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C  
C \*\*\*\*\* FORTRAN 77 FUNCTION: ETRED9 \*\*\*\*\*  
C  
C PURPOSE: TO CALCULATE THE REDUCED ENERGY FOR EIGHT TYPES OF  
C TRANSITION  
C  
C CALLING PROGRAM: ADAS108  
C  
C FUNCTION:  
C  
C INPUT: (R\*8) E = TRANSITION ENERGY (Eij)  
C (R\*8) T = COLLIDING ELECTRON ENERGY AFTER  
C EXCITATION (Ej)  
C (R\*8) B = BURGESS SCALING PARAMETER - B  
C (R\*8) C = BURGESS SCALING PARAMETER - C  
C (R\*8) TL = Ej/Eij  
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) ETRED9 = REDUCED ENERGY  
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  
C AUTHOR: HUGH SUMMERS, UNIVERSITY OF STRATHCLYDE  
C-----

INTEGER  
REAL\*8

KTYPE  
B, C, E, T