

ADAS Subroutine e6tran

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      SUBROUTINE E6TRAN( NDLEV  , NDTRN  , NDTEM  ,  
&                      IL      , ISTRN  , NV     ,  
&                      IA      , XJA    ,  
&                      APWL    , SWL    ,  
&                      I1A     , I2A    ,  
&                      GFTA    ,  
&                      IUPPER  , ILOWER ,  
&                      LUPPER  , LLOWER ,  
&                      WUPPER  , WLOWER ,  
&                      APWLO   , SWLO   ,  
&                      GOFTA   ,  
&                      )
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C  
C ***** FORTRAN77 SUBROUTINE: E6TRAN *****  
C  
C PURPOSE:  TO SET UP SELECTED TRANSITION PARAMETERS.  
C  
C CALLING PROGRAM: ADAS506  
C  
C SUBROUTINE:  
C  
C INPUT : (I*4)  NDLEV  = MAXIMUM NUMBER OF INDEX LEVELS  
C INPUT : (I*4)  NDTRN  = MAXIMUM NUMBER OF TRANSITIONS  
C INPUT : (I*4)  NDTEM  = MAXIMUM NUMBER OF INPUT FILE TEMPERATURES  
C  
C INPUT : (I*4)  IL     = NUMBER OF INDEX LEVELS  
C INPUT : (I*4)  ISTRN  = SELECTED TRANSITION INDEX.  
C INPUT : (I*4)  NV     = INPUT DATA FILE: NUMBER OF GFT/TEMPERATURE  
C                      PAIRS FOR THE SELECTED TRANSITION.  
C  
C INPUT : (I*4)  IA()   = LEVEL INDEX NUMBER ARRAY  
C INPUT : (R*8)  XJA()  = QUANTUM NUMBER (J-VALUE) FOR LEVEL  
C                      NOTE: (2*XJA)+1 = STATISTICAL WEIGHT  
C  
C INPUT : (R*8)  APWL() = APPROXIMATE WAVELENGTHS OF TRANSITIONS (A)  
C INPUT : (R*8)  SWL()  = EXACT WAVELENGTHS OF TRANSITIONS (A)  
C INPUT : (I*4)  I1A()  = LOWER LEVEL INDEX FOR RADIATIVE  
C                      TRANSITION  
C INPUT : (I*4)  I2A()  = UPPER LEVEL INDEX FOR RADIATIVE  
C                      TRANSITION  
C INPUT : (I*4)  GFTA(,) = GFT VALUES FOR RADIATIVE TRANSITION  
C                      1st DIMENSION: TEMPERATURE INDEX  
C                      2nd DIMENSION: TRANSITION INDEX  
C  
C OUTPUT: (I*4)  IUPPER = SELECTED TRANSITION: UPPER LEVEL ARRAY INDEX  
C OUTPUT: (I*4)  ILOWER = SELECTED TRANSITION: LOWER LEVEL ARRAY INDEX  
C  
C  
C OUTPUT: (I*4)  LUPPER = SELECTED TRANSITION: UPPER INDEX LEVEL  
C OUTPUT: (I*4)  LLOWER = SELECTED TRANSITION: LOWER INDEX LEVEL  
C
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C OUTPUT: (R*8) WUPPER = SELECTED TRANSITION: UPPER LEVEL STAT. WT.
 C OUTPUT: (R*8) WLOWER = SELECTED TRANSITION: LOWER LEVEL STAR. WT.
 C (NOTE: STAT. WT. = STATISTICAL WEIGHT)
 C OUTPUT: (R*8) APWLO = SELECTED APPROXIMATE WAVELENGTH (A)
 C OUTPUT: (R*8) SWLO = SELECTED EXACT WAVELENGTH (A)
 C
 C OUTPUT: (R*8) GOFTA() = INPUT DATA FILE: SELECTED TRANSITION -
 C GFT VALUE AT 'TEMP()'
 C
 C (I*4) I = GENERAL USE.

C ROUTINES: NONE

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 C K1/1/57
 C JET EXT. 4941

C DATE: 08/04/94

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 C-----

INTEGER	I1A (NDTRN) ,	I2A (NDTRN) ,	IA (NDLEV) ,	IL
INTEGER	ILOWER,	ISTRN,	IUPPER,	LLOWER
INTEGER	LUPPER,	NDLEV,	NDTEM,	NDTRN
INTEGER	NV			
REAL*8	APWL (NDTRN) ,	APWLO,	GFTA (NDTEM,NDTRN)	
REAL*8	GOFTA (NDTEM) ,		SWL (NDTRN) ,	SWLO
REAL*8	WLOWER,	WUPPER,	XJA (NDLEV)	