

## ADAS Subroutine b6wr12

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      SUBROUTINE B6WR12( IUNIT , DATE , IZ1 , IL ,  
&                      NDMET , NDTEM , NDDEN ,  
&                      LNORM ,  
&                      NMET , IMETR ,  
&                      IFOUT , MAXT , TINE ,  
&                      IDOUT , MAXD , DINE ,  
&                      CSTRGA , PL  
&                      )
```

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C-----  
C  
C ***** FORTRAN77 SUBROUTINE: B6WR12 *****  
C  
C PURPOSE: TO OUTPUT TOTAL LINE POWER PARAMETERS TO THE PASSING  
C           FILE ON STREAM 'IUNIT'.  
C  
C CALLING PROGRAM: ADAS206  
C  
C SUBROUTINE:  
C  
C INPUT : (I*4)  IUNIT  = OUTPUT STREAM NUMBER  
C INPUT : (C*8)  DATE    = CURRENT DATE AS 'DD/MM/YY'  
C INPUT : (I*4)  IZ1     = RECOMBINING ION CHARGE  
C                      (NOTE: IZ1 SHOULD EQUAL Z+1)  
C INPUT : (I*4)  IL      = NUMBER OF INDEX ENERGY LEVELS  
C  
C INPUT : (I*4)  NDMET   = MAX. NO. OF METASTABLES ALLOWED  
C INPUT : (I*4)  NDTEM   = MAX. NO. OF TEMPERATURES ALLOWED  
C INPUT : (I*4)  NDDEN   = MAX. NUMBER OF DENSITIES ALLOWED  
C  
C INPUT : (L*4)  LNORM   =.TRUE. => IF NMET=1 THEN TOTAL AND SPECIFIC  
C                      LINE POWER OUTPUT FILES PLT/PLS  
C                      NORMALISED TO STAGE TOT.POPULATN.  
C                      (** NORM TYPE = T)  
C                      =.FALSE. => OTHERWISE NORMALISE TO IDENTIFIED  
C                      METASTABLE POPULATIONS.  
C                      (** NORM TYPE = M)  
C  
C INPUT : (I*4)  NMET    = NUMBER OF METASTABLES ( 1 -> 5 )  
C INPUT : (I*4)  IMETR() = INDEX OF METASTABLES IN COMPLETE LEVEL LIST  
C  
C INPUT : (I*4)  IFOUT   = 1 => INPUT TEMPERATURES IN KELVIN  
C                      2 => INPUT TEMPERATURES IN EV  
C                      2 => INPUT TEMPERATURES IN REDUCED FORM  
C INPUT : (I*4)  MAXT    = NUMBER OF INPUT TEMPERATURES (1 -> 20)  
C INPUT : (R*8)  TINE()  = ELECTRON TEMPERATURES (UNITS: SEE 'IFOUT')  
C  
C INPUT : (I*4)  IDOUT   = 1 => INPUT DENSITIES IN CM-3  
C                      2 => INPUT DENSITIES IN REDUCED FORM  
C INPUT : (I*4)  MAXD    = NUMBER OF INPUT DENSITIES (1 -> 20)  
C INPUT : (R*8)  DINE()  = ELECTRON DENSITIES (UNITS: SEE 'IFOUT')  
C  
C INPUT : (C*18) CSTRGA() = INDEX LEVEL CONFIGURATIONS
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C INPUT : (R*8) PL(,,) = TOTAL LINE POWERS FOR METASTABLES. THIS IS
C THE SUM OF ALL EMISSIONS ORIGINATING IN THE
C COLLISIONAL-RADIATIVE SENSE FROM THE
C METASTABLE.
C => P(TOTAL)/N(IMET) (ERGS SEC-1)
C 1st DIMENSION: METASTABLE INDEX
C 2nd DIMENSION: TEMPERATURE INDEX
C 3rd DIMENSION: DENSITY INDEX
C
C (I*4) L1 = PARAMETER = 1
C (I*4) L2 = PARAMETER = 2
C (I*4) L3 = PARAMETER = 3
C
C (I*4) I = GENERAL USE
C (I*4) IM = ARRAY INDEX POINTER FOR METASTABLE STATES
C (I*4) IT = ARRAY INDEX POINTER FOR TEMPERATURES
C (I*4) ID = ARRAY INDEX POINTER FOR DENSITIES
C
C (R*8) RDEN() = ELECTRON DENSITIES (UNITS: REDUCED FORM)
C (R*8) RTEM() = ELECTRON TEMPERATURES (UNITS: REDUCED FORM)
C
C (C*1) CSTAR = '*'
C
C ROUTINES:
C ROUTINE SOURCE BRIEF DESCRIPTION
C -----
C XXTCN ADAS CONVERTS ENTERED TEMP. VALUES TO EV.
C XXDCN ADAS CONVERTS ENTERED DENSITY VALUES TO CM-3.
C
C AUTHOR: PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
C K1/0/81
C JET EXT. 4569
C
C DATE: 09/10/90
C
C UPDATE: 18/05/93 - PE BRIDEN: ADDED NORMALISATION INFO TO OUTPUT.
C NEW ARGUMENT - LNORM
C CHANGED FORMAT - 1011
C
C UPDATE: 20/05/93 - ADAS91 PEB: TO REFLECT CHANGES IN BXDATA THE
C CHARACTER ARRAY CSTRGA IS NOW 18 BYTES
C INSTEAD OF 12.
C NOTE: ONLY THE FIRST 12 BYTES ARE
C OUTPUT TO THE PASSING FILE.
C
C UNIX-IDL PORT:
C
C AUTHOR: WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)
C
C DATE: 06/06/96
C
C VERSION: 1.1 DATE:06/06/96
C MODIFIED: WILLIAM OSBORN

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C - FIRST VERSION

C

C

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CHARACTER*18	CSTRGA (IL)			
CHARACTER*8	DATE			
INTEGER	IDOUT,	IFOUT,	IL	
INTEGER	IMETR (NMET),	IUNIT,	IZ1,	MAXD
INTEGER	MAXT,	NDDEN,	NDMET,	NDTEM
INTEGER	NMET			
LOGICAL	LNORM			
REAL*8	DINE (MAXD),	PL (NDMET, NDTEM, NDDEN)		
REAL*8	TINE (MAXT)			