

## ADAS Subroutine b6norm

```
      SUBROUTINE B6NORM( NDLEV , NDMET ,  
&                      NORD   ,  
&                      STCK   ,  
&                      PLAX   , PLX   ,  
&                      PLASX  , PLSX  
&                      )
```

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C-----  
C  
C ***** FORTRAN77 SUBROUTINE: B6STOT *****  
C  
C PURPOSE: TO NORMALISE TOTAL/SPECIFIC LINE POWERS FOR LEVEL 1  
C           AND TOTAL EQUILIBRIUM LINE POWERS TO STAGE TOTAL POPULATION.  
C  
C CALLING PROGRAM:  ADAS206  
C  
C SUBROUTINE:  
C  
C INPUT :  (I*4)  NDLEV  = MAXIMUM NUMBER OF ENERGY LEVELS ALLOWED  
C INPUT :  (I*4)  NDMET  = MAXIMUM NUMBER OF METASTABLE LEVELS ALLOWED  
C  
C INPUT :  (I*4)  NORD   = NUMBER OF ORDINARY EXCITED LEVELS  
C  
C INPUT :  (R*4)  STCK(, ) = POPULATION MATRIX COVERING ALL NON-METAST-  
C                               ABLE/ORDINARY EXCITED LEVELS AS FUNCTION  
C                               OF METASTABLE INDEX.  
C                               VALUES FOR GIVEN TEMPERATURE AND DENSITY.  
C                               1st DIMENSION: ORDINARY EXCITED LEVEL INDEX  
C                               2nd DIMENSION: METASTABLE LEVEL INDEX  
C  
C I/O   :  (R*8)  PLAX   = INPUT:  
C                               TOTAL EQUILIBRIUM LINE POWER COEFFICIENTS.  
C                               AT FIXED TEMPERATURE AND DENSITY.  
C                               (UNITS: ERGS CM3 SEC-1)  
C                               OUTPUT:  
C                               NORMALISED TO TOTAL STAGE POPULATION  
C I/O   :  (R*8)  PLX    = INPUT:  
C                               TOTAL LINE POWERS FOR LEVEL 1 AT FIXED  
C                               TEMPERATURE AND DENSITY.  
C                               (UNITS: ERGS SEC-1).  
C                               OUTPUT:  
C                               NORMALISED TO TOTAL STAGE POPULATION  
C  
C I/O   :  (R*8)  PLASX  = INPUT:  
C                               SPECIFIC EQUILIBRIUM LINE PWR COEFFICIENTS.  
C                               AT FIXED TEMPERATURE AND DENSITY.  
C                               (UNITS: ERGS CM3 SEC-1)  
C                               OUTPUT:  
C                               NORMALISED TO TOTAL STAGE POPULATION  
C I/O   :  (R*8)  PLSX   = INPUT:  
C                               SPECIFIC LINE PWR FOR LEVEL 1 AT FIXED  
C                               TEMPERATURE AND DENSITY.  
C                               (UNITS: ERGS SEC-1).
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C          OUTPUT:
C          NORMALISED TO TOTAL STAGE POPULATION
C
C          (I*4)  IS1      = ORDINARY EXCITED LEVEL INDEX
C
C          (R*8)  STOTX    = VARIABLE USED TO SUM STAGE TOTAL POPULATN.
C                          (INITIAL VALUE = 1 => GROUND)
C
C ROUTINES: NONE
C
C NOTE:
C
C AUTHOR:  PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
C          K1/0/37
C          JET EXT. 5023
C
C DATE:    18/05/93
C
C UPDATE:  20/05/93 - P BRIDEN: STCK ARRAY CHANGED FROM REAL*8 -> REAL*4
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
C          - FIRST VERSION
C
C-----
C
C-----
C
C          INTEGER          NDLEV,          NDMET,          NORD
C          REAL*8           PLASX,          PLAX,          PLSX,          PLX
C          REAL             STCK (NDLEV, NDMET)

```