

ADAS Subroutine ups9

```
FUNCTION UPS9( T , IT , E , E0 , B , C ,  
& P , C1 , C2 ,  
& KT , XT , WT , K , X , W  
& )
```

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C-----  
C  
C ***** FORTRAN 77 FUNCTION: UPS9 *****  
C  
C PURPOSE:  
C     TO CALCULATE UPSILONS.  
C  
C CALLING PROGRAM:  
C     MAXW9  
C  
C INPUT:  
C     (R*8)  T    = TEMPERATURE (RYD. ENERGY UNITS)  
C     (I*4)  IT   = TRANSITION TYPE  
C     (R*8)  E    = EXCITATION ENERGY  
C     (R*8)  E0   = SWITCHING ENERGY BETWEEN THRES. AND ASYMP.  
C     (R*8)  B    = BURGESS/SUMMERS SCALING PARAMETE - B  
C     (R*8)  C    = BURGESS/SUMMERS SCALING PARAMETE - C  
C     (R*8)  P(9) = VALUES AT SPLINE KNOTS  
C     (R*8)  C1   = SCALING PARAMETERS  
C     (R*8)  C2   = SCALING PARAMETERS  
C     (I*4)  KT   = NUMBER OF QUADRATURE POINTS - THRES. TYPE  
C     (R*8)  XT() = FIXED QUADRATURE POINTS - THRES. TYPE  
C     (R*8)  WT() = FIXED QUADRATURE POINTS - THRES. TYPE  
C     (I*4)  K    = NUMBER OF QUADRATURE POINTS - ASYMP. TYPE  
C     (R*8)  X()  = FIXED QUADRATURE POINTS - ASYMP. TYPE  
C     (R*8)  W()  = FIXED QUADRATURE POINTS - ASYMP. TYPE  
C  
C OUTPUT:  
C     (R*8)  UPS9 - UPSILON  
C  
C  
C ROUTINES: NONE  
C  
C DATE:      24/06/99 VERSION 1.1  
C AUTHOR:    HUGH SUMMERS, UNIVERSITY OF STRATHCLYDE  
C - FIRST RELEASE  
C  
C-----
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```
INTEGER          IT,          K,          KT  
REAL*8          B,          C,          C1,          C2  
REAL*8          E,          E0,          P(9),          T  
REAL*8          W(20),          WT(20),          X(20),          XT(20)
```