

ADAS Subroutine xxreia

SUBROUTINE XXREIA(IUNIT , LSWIT , EIA)

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C
C ***** FORTRAN77 SUBROUTINE: XXREIA *****
C
C PURPOSE: TO READ IN IONISATION POTENTIALS FROM AN INPUT MASTER
C          CONDENSED FILE ALLOCATED TO UNIT 'IUNIT' WITHOUT KNOWING HOW
C          MANY ARE PRESENT.
C
C CALLING PROGRAMS: XXIN17 , XXIN80 , XXINST & GENERAL USE.
C
C SUBROUTINE:
C
C INPUT : (I*4)  IUNIT  = UNIT TO WHICH CONDENSED FILE IS ALLOCATED
C OUTPUT: (L*4)  LSWIT  = .TRUE. => VALID SET OF 'EIA()' VALUES FOUND
C          .FALSE. =>INVALID OR NO 'EIA()' VALUES FOUND
C OUTPUT: (R*8)  EIA()  = IONISATION RATE COEFFICIENTS: ()=ION CHARGE
C          UNITS - WAVE NUMBERS (CM-1)
C
C          (I*4)  IPOT   = INDEX OF IONISATION RATE COEFFT. VALUE BEING
C          ANALYSED.
C          (I*4)  IREC   = NUMBER RECORDS READ IN FROM 'IUNIT'
C          (I*4)  IBGN   = FIRST BYTE IN 'STRING' CONTAINING THE 'EIA()'
C          VALUE BEING ANALYSED.
C          (I*4)  IEND   = LAST BYTE IN 'STRING' CONTAINING THE 'EIA()'
C          VALUE BEING ANALYSED.
C          (NOTE: 'EIA()' VALUES IF PRESENT ARE STORED
C          SIX TO A LINE AS 6F12.1)
C          (I*4)  IABT   = RETURN CODE FROM 'R8FCTN' FUNCTION.
C          0 => NO ERROR
C          2 => INVALID FLOATING POINT NUMBER
C          (A BLANK INPUT STRING TO 'R8FCTN' CAUSES
C          A ZERO VALUE TO BE RETURNED AND IABT=0)
C          (I*4)  I      = GENERAL ARRAY USE
C
C          (L*4)  LDEND  = .TRUE. =>VALID END TO 'EIA()' SECTION FOUND
C          .FALSE.=>INVALID END TO 'EIA()' SECTION FOUND
C
C          (C*12) C12    = 12 BYTE STRING FOR STORING 'EIA()' VALUES
C          (C*80) STRING = 80 BYTE STRING FOR STORING INPUT FILE RECORD
C
C
C NOTE:
C          ON RETURN THE NEXT RECORD SHOULD BE THAT CONTAINING THE
C          REDUCED DENSITY VALUES.
C
C ROUTINES:
C          ROUTINE      SOURCE      BRIEF DESCRIPTION
C          -----
C          R8FCTN      ADAS          FUNCTION - CONVERT STRING -> REAL*8 NUM
C
C AUTHOR:  PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
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C K1/0/81
C JET EXT. 4569
C
C DATE: 22/08/90
C
C UNIX-IDL PORT:
C
C VERSION: 1.1 DATE: 06-09-95
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C - FIRST RELEASE (NO CHANGES)
C-----
C-----
INTEGER IUNIT
LOGICAL LSWIT
REAL*8 EIA(50)