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C OUTPUT: (R*8) SWVLN() = WAVELENGTH (ANGSTROM) FOR SPECIFIC LINE
C POWER TRANSITION GIVEN BY 'ISTRN' FOR EACH
C METASTABLE (UNITS: ERGS SEC-1)
C DIMENSION: METASTABLE COUNT INDEX
C OUTPUT: (R*8) TLOSS() = DIRECT LINE POWER LOSS FOR EACH LEVEL.
C (UNITS: ERGS SEC-1)
C DIMENSION: LEVEL INDEX
C
C (R*8) R2LOSS = PARAMETER = EQUATION CONSTANT = 2.17958D-11
C (CONVERTS RYDBERGS/SEC TO ERGS/SEC)
C (R*8) WCVRN = PARAMETER = EQUATION CONSTANT = 911.268
C (CONVERTS RYD. TRANS ENERGY TO WAVELENGTH
C IN ANGSTROM)
C (R*8) SCURR = CURRENT INDIVIDUAL LINE POWER
C
C (I*4) LLOWER = SELECTED ELECTRON IMPACT TRANSITION:
C LOWER ENERGY LEVEL INDEX
C (I*4) LUPPER = SELECTED ELECTRON IMPACT TRANSITION:
C UPPER ENERGY LEVEL INDEX
C (I*4) IC = TRANSITION ARRAY INDEX
C (I*4) IM = METASTABLE COUNT INDEX
C
C ROUTINES: NONE
C
C NOTES:
C EQUATIONS USED -
C
C FOR EACH TRANSITION - DIRECT LINE POWER LOSS IS GIVEN BY:
C
C LOSS = 'R2LOSS' x AVALUE x (ENERGY DIFFERENCE)
C
C
C AUTHOR: PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
C K1/0/37
C JET EXT. 5023
C
C DATE: 09/10/90
C
C UPDATE: 29/07/92 - CORRECT ERROR - ZERO TLOSS OVER NDLEV INSTEAD OF
C ICNTE.
C UPDATE: 23/05/96 - CONVERTED B6LOSS TO B8LOSS, CHANGED ISTRN TO
C OUTPUT INDEX OF STRONGEST RADIATING TRANSITION TO
C EACH METASTABLE.
C
C*****
C PUT UNDER S.C.C.S CONTROL:
C
C VERSION: 1.1 DATE: 15/07/96
C MODIFIED: WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)
C - FIRST PUT UNDER S.C.C.S
C
C VERSION: 1.2 DATE: 20/07/07

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C MODIFIED: Allan Whiteford

C - Small modification to comments to allow for automatic
C documentation preparation.

C

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C

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INTEGER	ICNTE,	IE1A (NDTRN),	IE2A (NDTRN)
INTEGER	IMETR (NDMET),	ISTRN (NDMET)	
INTEGER	NDLEV,	NDMET,	NDTRN, NMET
REAL*8	AVAL (NDTRN),	ER (NDLEV),	SLOSS (NDMET)
REAL*8	SWVLN (NDMET),	TLOSS (NDLEV)	
REAL*8	XJA (NDLEV)		