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C          1ST DIMENSION: CAPTURING LEVEL INDEX
C          2ND DIMENSION: PARENT INDEX
C
C OUTPUT:  (R*4)  STV()   = RECOMBINATION CONTRIBUTION FOR EACH
C          NON-METASTABLE/ORDINARY EXCITED LEVELS.
C          (UNITS: CM**3)
C          VALUES FOR GIVEN TEMPERATURE AND DENSITY.
C          DIMENSION: ORDINARY EXCITED LEVEL INDEX
C
C          (I*4)  IS1     = ORDINARY EXCITED LEVEL INDEX
C          (I*4)  IS2     = ORDINARY EXCITED LEVEL INDEX
C
C          (R*8)  COEF    = VARIABLE USED TO SUM COEFFICIENT VALUES
C
C ROUTINES: NONE
C
C NOTE:
C     IF:      n = number of ordinary/non-metastable levels
C             R(nxn) = Rate matrix (SEC-1) covering transitions between
C                   all possible pairs of ordinary levels.
C                   row   : final level
C                   column: initial level
C                   (Inverse R-1(nxn) = 'CMAT(,)' )
C             V(n)  = Recombination rate vector (CM**3 SEC-1) covering
C                   all ordinary levels.
C                   ( = 'VEC()' - ordinary level part ).
C             S(n)  = Recombination contribution vector (CM**3) covering
C                   all ordinary levels ( = 'STV()' ).
C
C             Therefore:  R(nxn).S(n) = V(n)
C
C             =>         S(n)  = R-1(nxn).V(n)
C
C
C AUTHOR:  HP SUMMERS  (UPGRADE OF BXSTKB BT PE BRIDEN)
C          K1/1/57
C          JET EXT. 4941
C
C DATE:    11/06/92
C
C UPDATE:  12/07/93  HPS - CHANGE STV DIMENSION TO R*4
C*****
C UNIX-IDL PORT:
C
C AUTHOR:  DAVID H BROOKS, UNIVERSITY OF STRATHCLYDE
C
C DATE:   UNKNOWN
C
C*****
C PUT UNDER SCCS CONTROL:
C

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C VERSION: 1.1 DATE: 10/05/96

C MODIFIED: WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)

C - FIRST PUT UNDER SCCS

C

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C

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INTEGER	IORDR (NDLEV) ,	IP ,	IT
INTEGER	NDLEV, NDMET ,	NDTEM ,	NORD
REAL*8	CMAT (NDLEV, NDLEV) ,	DENS	
REAL	STV (NDLEV)		
REAL*8	V3 (NDLEV, NDMET)		
REAL*8	VEC (NDTEM, NDLEV, NDMET)		