

ADAS Subroutine bgcoef

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      SUBROUTINE BGCOEF (LPSEL , LZSEL , LIOSEL ,
&                      LHSEL , LRSEL , LISEL , LNSEL ,
&                      NMET , IMETR , IFOUT , IDOUT ,
&                      MAXT , TINE , TINP , TINH ,
&                      MAXD , DINE , DINP ,
&                      AA , XIA , XJA , ER , ZEFF ,
&                      ICNTE , ICNTP , ICNTR , ICNTH , ICNTI ,
&                      IETRN , IPTRN , ITRN , IHTRN , IITRN ,
&                      IE1A , IE2A , IP1A , IP2A ,
&                      I1A , I2A ,
&                      IL , NV , SCEF , TSCEF , SCOM ,
&                      IUNT27 , OPEN27 , IZ0 , IZ1 ,
&                      DSNEXP , DSNINC ,
&                      MAXLEV , npl , nplr , npli , NPLA , IPLA ,
&                      BWNO , BWNOA , PRTWTA ,
&                      POPAR
&                      )
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C ***** FORTRAN77 SUBROUTINE: BGCOEF *****

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C PURPOSE: CALCULATES COLLISIONAL-RADIATIVE POPULATION

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C CALLING PROGRAM: ADAS216

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C ROUTINES:

C ROUTINE SOURCE BRIEF DESCRIPTION

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C THIS IS A SUBROUTINE VERSION OF ADAS208 WITHOUT THE SEARCH FOR IONISATION
C RATES FROM ADF07 FILES.

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C MODIFIED : Martin O'Mullane
C First version.

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CHARACTER*80        DSNEXP,        DSNINC
INTEGER            I1A (NDTRN) ,    I2A (NDTRN) ,    ICNTE,            ICNTH
INTEGER            ICNTI,           ICNTP,            ICNTR,            IDOUT
INTEGER            IE1A (NDTRN) ,   IE2A (NDTRN) ,   IETRN (NDTRN)
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INTEGER	IFOUT,	IHTRN (NDTRN)		
INTEGER	IITRN (NDTRN) ,		IL	
INTEGER	IMETR (NDMET) ,		IP1A (NDTRN)	
INTEGER	IP2A (NDTRN) ,	IPLA (NDMET, NDLEV)		
INTEGER	IPTRN (NDTRN) ,		IRTRN (NDTRN)	
INTEGER	IUNT27,	IZ0,	IZ1,	MAXD
INTEGER	MAXLEV,	MAXT,	NMET,	NPL
INTEGER	NPLA (NDLEV) ,	NPLI,	NPLR,	NV
LOGICAL	LHSEL,	LIOSEL,	LISEL,	LNSEL
LOGICAL	LPSEL,	LRSEL,	LZSEL,	OPEN27
REAL*8	AA (NDTRN) ,	BWNO,	BWNOA (NDMET)	
REAL*8	DINE (NDDEN) ,	DINP (NDDEN) ,	ER (NDLEV)	
REAL*8	POPAR (NDLEV, NDTEM, NDDEN) ,	PRTWTA (NDMET)		
REAL*8	SCEF (14) ,	SCOM (14, NDTRN)		
REAL*8	TINE (NDTEM) ,	TINH (NDTEM) ,	TINP (NDTEM)	
REAL*8	TSCEF (14, 3) ,	XIA (NDLEV) ,	XJA (NDLEV) ,	ZEFF