

ADAS Subroutine c6chrg

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SUBROUTINE C6CHRG( SYMBD , IZD , SYMBR , IZR , IDZO ,  
& IRZ0 , IRZ1 , IRZ2 , NGRND , NBOT  
& )
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C  
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C ***** FORTRAN77 SUBROUTINE: C6CHRG *****  
C  
C PURPOSE:  SETS UP NUCLEAR CHARGE OF DONOR AND NUCLEAR, INITIAL AND  
C           FINAL CHARGES OF RECEIVER. CHECKS VALIDITY OF RECEIVER  
C           CHARGES. ALSO SETS GROUND STATE N LEVEL AND LOWEST N LEVEL  
C           FOR TABULAR OUTPUTS.  
C  
C CALLING PROGRAM: ADAS306  
C  
C INPUT : (C*2)  SYMBD   = DONOR ELEMENT SYMBOL.  
C INPUT : (I*4)  IZD     = DONOR ION CHARGE.  
C INPUT : (C*2)  SYMBR   = RECEIVER ELEMENT SYMBOL.  
C INPUT : (I*4)  IZR     = RECEIVER ION CHARGE.  
C  
C OUTPUT: (I*4)  IDZO    = DONOR NUCLEAR CHARGE.  
C OUTPUT: (I*4)  IRZ0    = RECEIVER NUCLEAR CHARGE.  
C OUTPUT: (I*4)  IRZ1    = RECEIVER ION INITIAL CHARGE.  
C OUTPUT: (I*4)  IRZ2    = RECEIVER ION FINAL CHARGE.  
C OUTPUT: (I*4)  NGRND   = PRINCIPAL QUANTUM NUMBER OF GROUND STATE.  
C OUTPUT: (I*4)  NBOT    = MINIMUM PRINCIPAL QUANTUM NUMBER.  
C  
C ROUTINES:  
C           ROUTINE      SOURCE      BRIEF DESCRIPTION  
C           -----  
C           I4UNIT      ADAS        RETURNS UNIT NO. FOR OUTPUT MESSAGES  
C           CXCHRG     ADAS        RETURNS DONOR NUCLEAR CHARGE AND  
C                                 RECEIVER NUCLEAR, INITIAL AND FINAL  
C                                 CHARGES.  
C  
C AUTHOR:  JONATHAN NASH (TESSELLA SUPPORT SERVICES PLC)  
C          K1/0/81  
C          JET EXT. 5183  
C  
C DATE:    11/11/93  
C  
C UNIX-IDL PORT:  
C  
C AUTHOR:  WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)  
C  
C DATE:    22ND MAY 1996  
C  
C VERSION: 1.1                               DATE: 22-05-96  
C MODIFIED: WILLIAM OSBORN  
C           - FIRST VERSION. NO CHANGES FROM IBM VERSION.  
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CHARACTER*2	SYMBD,	SYMBR		
INTEGER	IDZ0,	IRZ0,	IRZ1,	IRZ2
INTEGER	IZD,	IZR,	NBOT,	NGRND