

ADAS Subroutine dxexcf

SUBROUTINE DXEXCF(CONFIG , NOCCUP , LTYPE)

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C
C ***** FORTRAN 77 SUBROUTINE: DXEXCF *****
C
C PURPOSE: RETURNS VECTOR OF OCCUPANCIES FOR STANDARD SHELL INDICES
C           1-15 FROM AN EISSNER HEXADECIMAL CHARACTER CONFIGURATION
C           SPECIFICATION
C
C CALLING PROGRAM: VARIOUS
C
C SUBROUTINE:
C
C INPUT  : (C*18) CONFIG = EISSNER CONFIGURATION
C OUTPUT : (I*4)  NOCCUP() = OCCUPANCY FOR EACH DECIMAL ORBITAL
C           INDEX 1-15.
C OUTPUT : (L*4)  LTYPE   = .TRUE.  => CONFIG. EISSNER FORM
C           .FALSE. => CONFIG. NOT EISSNER FORM
C
C           (I*4)  I       = GENERAL INDEX
C           (I*4)  IFIRST  = GENERAL STRING POSITION INDEX
C           (I*4)  ILAST  = GENERAL STRING POSITION INDEX
C           (C*1)  CHRA()  = EISSNER HEXADECIMAL ORBITAL LIST
C           (L*4)  LSTAN  = .TRUE.  => CONFIG. STANDARD FORM
C           .FALSE. => CONFIG. NOT STANDARD FORM
C           (I*4)  NVLCE  = VALENCE SHELL
C
C ROUTINES:
C           ROUTINE      SOURCE      BRIEF DESCRIPTION
C-----
C           I4EISS      ADAS        EXPAND EISSNER CONFIG. INTO SHELL OCCUP.
C           I4UNIT      ADAS        FETCH UNIT NUMBER FOR OUTPUT OF MESSAGES
C           XXDTES      ADAS        DETECT CONFIGURATION FORM
C           XXSLEN      ADAS        FIND NON-BLANK LENGTH OF A STRING
C
C AUTHOR:  H. P. SUMMERS, UNIVERSITY OF STRATHCLYDE
C           JA8.08
C           TEL. 0141-553-4196
C
C DATE:    04/06/96
C
C UNIX-IDL PORT:
C           WILLIAM OSBORN, TESSELLA SUPPORT SERVICES PLC.
C
C DATE:    20TH AUGUST 1996
C
C VERSION: 1.1 DATE: 20-08-96
C MODIFIED: WILLIAM OSBORN
C           - FIRST VERSION
C
C VERSION: 1.2
C MODIFIED: H. P. SUMMERS DATE: 24-06-97
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C - INSERTED TRAP FOR BARE NUCLEUS CONFIG.
C
C VERSION: 1.3
C MODIFIED: R. MARTIN DATE: 30-06-97
C - ADDED SCCS KEYWORDS OMITTED IT PREVIOUS VERSION.
C
C VERSION: 1.4 DATE: 22-11-2003
C MODIFIED: Martin O'Mullane
C - Pass configurations through ceprep before acting on them.
C

C-----
CHARACTER*18 CONFIG
INTEGER NOCCUP(61)
LOGICAL LTYPE