

C
 C I/O : (R*8) XSECNA(,) = N-RESOLVED CHARGE EXCHANGE CROSS-SECTIONS.
 C UNITS: CM2
 C 1ST DIMENSION: ENERGY INDEX
 C 2ND DIMENSION: N-SHELL
 C I/O : (R*8) FRACLA(,) = L-RESOLVED CHARGE EXCHANGE CROSS-SECTIONS
 C EXPRESSED AS FRACTION OF CORRESPONDING
 C N-RESOLVED CROSS-SECTION.
 C 1ST DIMENSION: ENERGY INDEX
 C 2ND DIMENSION: REFERENCED BY I4IDFL(N,L)
 C
 C PARAM : (R*8) ALPMIN = MINIMUM VLUE OF EXTRPOLATION EXPONENT
 C 'ALPHA'.
 C
 C (I*4) IE = ENERGY INDEX.
 C (I*4) N = PRINCIPAL QUANTUM NUMBER.
 C (I*4) L = ORBITAL QUANTUM NUMBER.
 C (I*4) IDL = L-RESOLVED DATA INDEX.
 C (I*4) IDL1 = L-RESOLVED DATA INDEX.
 C (I*4) IDL2 = L-RESOLVED DATA INDEX.
 C (I*4) ITYPE = TYPE OF APPROX. TO USE IN FUNC R8FORM.
 C
 C (R*8) XNMAXF = REAL VALUE = NMAXF.

C ROUTINES:

ROUTINE	SOURCE	BRIEF DESCRIPTION
I4IDFL	ADAS	RETURNS UNIQUE INDEX FROM QUANTUM NUMBERS N AND L.
R8FORM	ADAS	RETURNS L-RES X-SEC AS FRACTION OF N-RES X-SEC.

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INTEGER	LFORMA (MXNENG) ,	MXNENG,	MXNSHL
INTEGER	NENRGY,	NMAXF,	NMINF
LOGICAL	LPARMS		
REAL*8	ALPHAA (MXNENG)		
REAL*8	FRACLA (MXNENG, (MXNSHL* (MXNSHL+1)) /2)		
REAL*8	PL2A (MXNENG) ,	PL3A (MXNENG)	
REAL*8	XLCUTA (MXNENG)		
REAL*8	XSECNA (MXNENG, MXNSHL)		