

PACKAGE ID - 001237IBMPC00 ISABEL

KWIC TITLE - Intra Nucleon Cascade Program

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LIMITATION CODE -UNL **AUDIENCE CODE** - UNL

COMPLETION DATE - 02/26/1997 **PUBLICATION DATE** - 02/26/1997

DESCRIPTION - The package consists of three programs ISABEL, EVA, and PACE-2. ISABEL and PACE-2 are part of the LAHET code. ISABEL is an intra-nucleon cascade program. The output cascades are used as directly as input files to the two evaporation programs EVA and PACE-2. EVA ignores the effect of the angular momentum of the excited nuclei on the deexcitation and also ignores the possibility of gamma emission as long as particle emission is energetically allowed. PACE-2 takes full account of angular momentum effects including irast levels and gamma emission at all stages of the evaporation chain.

PACKAGE CONTENTS - Information Package; Software Abstract; Media
Includes Source Code, User's Instructions, Test Problems Input and Output;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 3.5 Diskette

COMPUTER - IBM PC

OPERATING SYSTEMS - Machine dependent

PROGRAMMING LANGUAGES - FORTRAN

SOFTWARE LIMITATIONS - EVA ignores the effect of the angular momentum of the excited nuclei on the deexcitation and also ignores the possibility of gamma emission as long as particle emission is energetically allowed. EVA should therefore only be used for cases where these approximations are acceptable.

SOURCE CODE AVAILABLE (Y/N) - Y

RELATED SOFTWARE - ISABEL and PACE-2 are part of the widely used LAHET code.

OTHER PROG/OPER SYS INFO - The source codes were adapted for Microsoft F32 FORTRAN. To use the programs on UNIX machines, one only has to omit the clearly marked changes for the PC-version in the source

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OTHER PROG/OPER SYS INFO - (CONT) codes.

TIME REQUIREMENTS - Running times for PACE-2 are at least an order of magnitude greater than for EVA.

ABSTRACT STATUS - Release tested August 19, 1998. Tested by NEA.

SUBJECT CLASS CODE - A

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
I CODES
EVAPORATION MODEL
NUCLEAR CASCADES
NUCLEAR MODELS
STATISTICAL MODELS

EDB SUBJECT CATEGORIES -
990200

SPONSOR - NEA

PACKAGE TYPE - TESTED