

PACKAGE ID - 001177GENWS00 DATHETA4.0

KWIC TITLE - Solves Poisson's Equation in Axisymmetric
Geometry on a Rectangular Mesh

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 10/01/1995 **PUBLICATION DATE** - 10/01/1995

DESCRIPTION - DATHETA4.0 computes the magnetostatic field produced by multiple point current sources in the presence of perfect conductors in axisymmetric geometry. DATHETA4.0 has an interactive user interface and solves Poisson's equation using the ADI method on a rectangular finite-difference mesh. DATHETA4.0 includes models specific to applied-B ion diodes.

PACKAGE CONTENTS - Media Directory; Software Abstract; Media Includes Source Code, User's Guide, Executable Module, Sample Problem Input Data;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 CD Rom

METHOD OF SOLUTION - ADI method

COMPUTER - WORK STATION

OPERATING SYSTEMS - Unix

PROGRAMMING LANGUAGES - Fortran

SOFTWARE LIMITATIONS - Problem size limited by disk space

SOURCE CODE AVAILABLE (Y/N) - Y

UNIQUE FEATURES - Includes specialized models specific to applied-B ion diodes.

RELATED SOFTWARE - Uses Sandia developed data archival, I/O and graphics libraries.

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RELATED SOFTWARE - (CONT)

OTHER PROG/OPER SYS INFO - Requires Xwindows; uses data archival library, I/O library, and graphics library

HARDWARE REQS - Unix workstation

TIME REQUIREMENTS - Magnetostatic solution: 1-5 minutes for mesh size approx. 100 x 100.

ABSTRACT STATUS - Submitted 8/7/97. Released AS-IS 10/17/97

SUBJECT CLASS CODE - V

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
D CODES
POISSON EQUATION
MESH GENERATION

EDB SUBJECT CATEGORIES -

990200

SPONSOR - DOE/DP

PACKAGE TYPE - AS - IS