

PACKAGE ID - 000677IBMPC00 HFIT30

KWIC TITLE - Thomson Scattering Lineshape Fitting for
Plasma Diagnostics

AUTHORS - Lassahn, G.D.
EG and G Idaho, Inc., Idaho Falls, ID (United States)

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

COMPLETION DATE - 02/07/1994 **PUBLICATION DATE** - 02/07/1994

DESCRIPTION - HFIT30 is used for interpreting lineshape (intensity
versus frequency) data from Thomson and Rayleigh light scattering
from a plasma, to obtain temperatures and number densities of the
component species in the plasma.

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

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 3.5 Diskette

METHOD OF SOLUTION - The calculation is primarily a standard non-linear
least squares fitting procedure.

COMPUTER - IBM PC

OPERATING SYSTEMS - Microsoft DOS 5.0

PROGRAMMING LANGUAGES - FORTRAN Lahey F77L 4.00

SOFTWARE LIMITATIONS - The screen graphics may not be compatible with
all systems.

SOURCE CODE AVAILABLE (Y/N) - Y

HARDWARE REQS - This software should run on any IBM compatible PC,
except that the screen graphics may not operate exactly correctly
on some systems.

TIME REQUIREMENTS - Roughly one minute per data set.

REFERENCES - User's Guide On Media.

ABSTRACT STATUS - Submitted April 22, 1994. Released AS-IS May 18, 1994
due to compiling and linking errors.

SUBJECT CLASS CODE - XW

KEYWORDS -

PACKAGE ID - 000677IBMPC00 HFIT30

COMPUTER PROGRAM DOCUMENTATION
H CODES
PLASMA DIAGNOSTICS
LINE WIDTHS
RAYLEIGH SCATTERING
PLASMA
OPTICAL PROPERTIES
DIAGNOSTIC TECHNIQUES
THOMSON SCATTERING

EDB SUBJECT CATEGORIES -
990200 700320

SPONSOR - DOE/ER

PACKAGE TYPE - AS - IS