## Title of Program or System

The title should be the symbolic name of the program followed by a maximum of 15 words that succinctly describes the purpose of the program. For example:

*LINCOM* – Search program for significant variables

*Name(s) of Author(s)* with affiliation(s) and address(es).

### The crystallographic problem

Describe clearly the computational problem that the program attempts to solve. If describing a program system, the overall problem and those treated by the individual modules should be described.

### Method of solution

Describe in clear language the general nature and source of the algorithms used in treating the problem described above. For program systems, first describe the overall approach and then the method of each module.

### Software environment

*Operating system(s)* under which the computer(s) run.
*Programming language(s)* used to write the program.
*Overlay structure.* State "none" if this is the case.
*Subroutine libraries accessed* which are not an integral part of the source code of the program. *e.g.* NAG library.

### Hardware environment

*Computer(s) and Installation(s).* Give the names of the computers upon which the program was implemented and the locations of the installations. Give also if applicable the types of other computers on which the program is applicable. For example, a program written in UCSD Pascal should run on any machine supporting UCSD Pascal.
*(Minimum) number of bits per word or byte.*
*Minimum high-speed store required to run the program.* Give the value in words, kwords, bytes, or kbytes as necessary. Comment on whether more high speed storage improves the program performance.
*Peripherals used.* Detail those peripherals (and the number of each) used by the program, *e.g.* magnetic tapes, disk units, card reader, printer, plotter, special terminals *etc.*, *etc.*

### Program specification

*Restrictions on the complexity of the calculation* performed by the program.
*Unusual features* of the program.

*Typical run times* using the computer mentioned in the hardware environment. Specify the size and nature of the test calculations.
*Number of lines* in the program, the test decks and the documentation that are in machine-readable form.
*Test status.* State range and number of test cases completed.

### Documentation

State the documentation and the form in which it is available for those (*a*) using, (*b*) maintaining and (*c*) modifying the program.

### Availability

Explain how and to whom to apply for a copy of the program as hard copy or in machine-readable form. If the program is not available for distribution, this should be stated explicitly. Indicate any undertakings required of an applicant for the program. Indicate any expiry date for distribution of the program if known. If the program can be obtained in machine-readable form, indicate the formats available. *e.g.* magnetic tape densities, character codes, parities, labelling, format. For punched cards, paper tapes, floppy disks and other media comparable information should be given.

### Keywords

Give up to 6 keywords useful for indexing the program.

### References

Give references to other publications concerning the algorithms and to the program itself if this Abstract is an update. These references should be referred to elsewhere in the Abstract.

## New Commercial Products Section

Announcements of new commercial products are now published by the *Journal of Applied Crystallography* free of charge. The descriptions, up to 300 words or the equivalent if a figure is included, should give the price and the manufacturer's full address. Full or partial inclusion is subject to the Editor's approval and to the space available. All correspondence should be sent to the Editor, Professor M Schlenker, Editor *Journal of Applied Crystallography*, Laboratoire Louis Néel du CNRS, BP166, F-38042 Grenoble CEDEX, France.

The International Union of Crystallography can assume no responsibility for the accuracy of the claims made. A copy of the version sent to the printer is sent to the company concerned.

# Book Reviews

## Deformation of ceramic materials II (Materials Science Research 18). Edited by *R. E. Tressler* and *R. C. Bradt.* Pp. xii + 751. New York: Plenum, 1984. Price US $ 95.00.

The audience for textbooks of ceramics remains small and this coupled with the rapid advances being made in the subject means that much of the progress must be mapped out in the form of published conference proceedings. The *Materials Science Research* series has established a good record in this regard.

The present volume stems from a meeting held in July 1983 and includes keynote papers and general contributions on plastic deformation (covalent materials, oxides, and silicates) and on creep deformation and failure. The papers on cavity nucleation and crack growth during creep give a helpful guide to what is now recognised as a key problem in developing ceramics for high-temperature mechanical applications. The topic that most closely impinges on crystallographic concerns is the structural interpretation of plastic deformation and a number of papers dealing with specific systems, *e.g.* Si, WC, $W_2C$, SiC, $Al_2O_3$, $MgAl_2O_4$, are included in the proceedings.

R. J. BROOK

*Department of Ceramics*
*University of Leeds*
*Leeds LS2 9JT*
*England*

# Books Received

**Smectic liquid crystals: textures and structures.** By *G. W. Gray* and *J. W. Goodby.* Pp. xxvi + 162. Glasgow: Leonard Hill, 1984. Price £46.00. A review of this book, by M. Klèman, has been published in the June 1985 issue of *Acta Crystallographica,* Section B, pages 205–206.