

Acta Cryst. (1980). **A36**, 834

Oxidation reactions in natural Fe–Ti oxide spinels: erratum. By R. FROST, *Department of Geology and Mineralogy, University of Oxford, Parks Road, Oxford OX1 3PH, England* and P. L. GAI, *Department of Metallurgy and Science of Materials, University of Oxford, Parks Road, Oxford OX1 3PH, England*

(Received 31 July 1980)

Abstract

The scale mark on Fig. 2(a) of Frost & Gai [*Acta Cryst.* (1980), **A36**, 678–682] was deleted by the printer. The magnification factor for this figure is $\times 38\,300$.

All information is given in the *Abstract*.

International Union of Crystallography

Acta Cryst. (1980). **A36**, 834

Co-editors of *Acta Crystallographica*

Professor J. M. Cowley, Department of Physics, Arizona State University, USA, and Professor M. M. Woolfson, Department of Physics, University of York, England, have resigned as Co-editors of *Acta Crystallographica*. They have been succeeded by Professor R. Collela, Physics Department, Purdue University, USA, and Dr B. T. M. Willis, Materials

Physics Division, AERE Harwell, England. Dr S. Jagner, Department of Inorganic Chemistry, Chalmers University of Technology and University of Göteborg, Sweden, has also been appointed as a Co-editor, whilst Dr M. Hospital, Laboratoire de Cristallographie et de Physique Cristalline du CNRS, Talence, France, was appointed a Co-editor earlier this year. The full addresses of all Co-editors of the journal are given on the inside front cover of each issue.

Book Reviews

Works intended for notice in this column should be sent direct to the Book-Review Editor (J. H. Robertson, School of Chemistry, University of Leeds, Leeds LS2 9JT, England). As far as practicable books will be reviewed in a country different from that of publication.

Acta Cryst. (1980). **A36**, 834

Induced representation in crystals and molecules. Point, space and nonrigid molecule groups. By SIMON L. ATTMANN. Pp. xviii + 369. London: Academic Press, 1977. Price £18.80, US \$35.25.

Group-theory applications are becoming increasingly more complex in theoretical chemistry and related fields. A valuable monograph on some of the more advanced topics is here available in the form of a detailed account of the construction of representations for the larger groups, particularly the space groups.

Altmann provides a basic introduction to the theory of finite groups in the initial chapters of the book. Great care is taken in order to have a consistent set of notations by using a rather extensive list of symbols in a variety of types. Cross references are frequent in a short-hand system.

The basic features of representation theory are covered as

a preamble to the development of induced representations. Fundamental theorems by Mackey are proved within the realm of what is required for the present applications. Little groups, orbits and other concepts are clearly enunciated with examples and they are then used to determine the induced representations. Their properties with regard to irreducibility and completeness are proven and the tools are then ready for application.

The nature of the space groups has been greatly elucidated in papers by Altmann and coworkers and the essence of this development is presented in this text. The closely related subject of semidirect products, which is of importance also in point groups, is also given thorough exposure. Altmann's text closes with a balanced exposition of the development of a group-theoretical basis for the so-called 'non rigid molecules'.

As a reviewer I am in the position that I have found no error to prove that I have worked through all the formulas, but as a reader I am pleased to have found a well written and nicely produced book. Some of the notations which are chosen seem to me to be a bit contrived, however, and the list