

LETTERS TO THE EDITOR

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Comments on *Crystal Properties via Group Theory* by A. S. Nowick, Cambridge University Press, 1995

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I should like to comment on a book that has recently been published (*Crystal Properties via Group Theory* by Arthur S. Nowick, Cambridge University Press, 1995). The author refers in the preface to my book *Physical Properties of Crystals* (Nye, 1957): "In fact Nye (page 122 of his book), commenting on work using group theory, states: 'group theory ... does not reveal which moduli are independent but only the total number of independent ones'. The present book is dedicated to showing, not only that this statement is untrue, but that the use of group theory lends elegance and beauty to what would otherwise be dull calculations."

The quotation is incomplete. If the phrase represented by the dots and the next sentence had been included, the picture presented would be different. After referring, in my book, to a number of publications, I continue: 'Group theory as applied in the above publications does not reveal which of the moduli are independent, but only the *total number* of independent ones. The *listing* of the independent components in each class by group theoretical methods has been studied by Fumi (1952*d*)

and by Fieschi and Fumi (1953), who give further references (see also Jahn 1937).'

That statement is perfectly correct: it is only the misquoted one that is untrue. Thus, the author changes a correct statement into an incorrect one and then dedicates his book to showing its untruth. This does an injustice to those who have already listed the independent components by group theoretical methods. There is additional material on the subject on p. 314 of the revised (1985) edition of my book (this material is not referred to by Nowick and is by no means exhaustive); it should be supplemented by the paper of Fumi (1987).

References

- Fumi, F. G. (1987). *Acta Cryst.* **A43**, 587–588.
 Nye, J. F. (1957). *Physical Properties of Crystals*. Oxford University Press.
 Nye, J. F. (1985). *Physical Properties of Crystals*, revised ed. Oxford University Press.