established, agreeing with cell (II) both in dimensions and relative intensities. The *DETCELL* program from the CAD-4 software was used to make precise measurements of 2θ for 29 reflections. The values reported for cell (II) in Table 2 result from a least-squares refinement of these measurements, using the *PARAM* link of the X-RAY System (Stewart, Kruger, Ammon, Dickinson & Hall, 1972).

In order to establish whether cells (I) and (II) referred to the same lattice, the two sets of cell dimensions were sent to Dr Alan D. Mighell for comparison, based on the criteria established by Donnay & Ondik (1972). Only cell (II) was a reduced cell, with cell (I) being transformed to it by the matrix $(101/0\bar{1}0/00\bar{1})$, giving cell (I') of Table 1.

The precision with which both cells can be determined is shown in Table 2. The Miller indices of the reflections used in the refinement of cell (II) were transformed to cell (I) using the above matrix, and refined to convergence with *PARAM*. Cells (I) and (II) are clearly different on the basis of the e.s.d.'s, although the magnitude of the differences is sufficiently small that, except for γ, they might reasonably be attributed to experimental error. Furthermore, on the basis of the determinative numbers a/b and c/b (Donnay & Ondik, 1972) the cells could be considered identical.

It is well established that the Delaunay algorithm does not necessarily lead to the reduced cell as defined by Niggli (Santoro & Mighell, 1970). The present case represents satisfaction *within experimental error* of their special condition 3(*e*), *i.e.* $\mathbf{a} \cdot \mathbf{b} = \frac{1}{2}\mathbf{a} \cdot \mathbf{a}$. If the cell dimensions are considered (incorrectly) to be geometrically exact values, then the small difference in γ between cells (I) and (II) alters the sense of the inequality between $\mathbf{a} \cdot \mathbf{b}$ and $\frac{1}{2}\mathbf{a} \cdot \mathbf{a}$, and leads to the ambiguous cell reduction. Metrically pseudo-hexagonal cells, for which there must exist three, nearly equal, coplanar lattice translations, are particularly subject to this problem. Such an ambiguity was discussed by Patter-

son & Love (1957), with respect to the Delaunay reduction, but not generalized to cells with metric pseudosymmetry.

The hazards of uncritical acceptance of cell dimensions produced by diffractometer software should be evident. In particular, it is essential to consider the experimental error of the matrix scalars when testing the Niggli matrix for the special conditions listed by Santoro & Mighell (1970).

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International Union of Crystallography

Report of the Tenth General Assembly and International Congress of Crystallography

The Report of the Tenth General Assembly and Congress has been published in *Acta Crystallographica*, Section A [*Acta Cryst.* (1976), A**32**, 691–745]. It includes the minutes of the General Assembly; the triennial reports of the Executive Committee, the Commissions and the Union representatives on bodies not belonging to the Union; the Statutes and By-Laws as amended by the Tenth Assembly; membership of the Executive Committee and the Commissions; names and addresses of Union representatives on other bodies; a list of Adhering Bodies and the membership of National Committees for Crystallography, with names and addresses of the Secretaries. Reprints of the report have been sent to Secretaries of National Committees.

World Directory of Crystallographers
Fifth Edition

Biographical data for the Fifth Edition of the *World Directory of Crystallographers* are now being compiled in

many countries. Each crystallographer in a country for which a national Sub-Editor has been appointed should have recently received a Data Input Form to complete. Anyone who has not received a Data Input Form should request one immediately from his Sub-Editor. A list of national Sub-Editors has been published in *Acta Cryst.* A**32**, pp. 745–747. Efforts are being made to contact crystallographers in all other countries: if not reached by 1 August 1976, they should write directly to the General Editor, Dr S. C. Abrahams, Bell Laboratories, Murray Hill, New Jersey 07974, U.S.A. Scientists with crystallographic colleagues in countries without Sub-Editors are requested to bring this notice to their attention.

The Fifth Edition of the *World Directory of Crystallographers* will be produced by computer-controlled photocomposition from punched cards prepared by the Sub-Editors. The resulting book is expected to be published by mid 1977, and to compare favourably with the Fourth Edition in appearance but at a substantially lower cost.