Tabellen zur Röntgenstrukturanalyse. By Dr Konrad Sagel. Pp. viii+204. Berlin, Göttingen, Heidelberg: Springer Verlag, 1958. Price DM. 28.

While the crystallographic world was waiting for Vol. II and III of the *International Tables for X-ray Crystallography* to appear, Dr Sagel has single-handedly produced his 'Tabellen', which offer a remarkable amount of information within a small and handy book. Sagel has a definite gift for the setting-up of tables in a convenient and lucid way. There is no doubt that the book will continue to be useful now that Vol. II of the *International Tables* has appeared. Although there is, of course, considerable overlap, Sagel gives several useful tables which have not been included in Vol. II of these tables, for example L.P.-factors for the Guinier camera (Table B 2), a larger variety of goniometric functions (Tables A 3, C 2 and C 3). On the other hand, Laue, Weissenberg and precession methods are not even mentioned. The book is divided in three main sections. *A* deals with indexing of powder diagrams, experimental errors in Bragg angles (mainly in powder diagrams) and lattice geometry. Apart from tables and nomograms pertaining to these subjects, there is i.a. a list of schematic powder diagrams of several cubic structure types and a table of cell constants of several hundreds of inorganic substances. Section *B* deals with determination of 'Linienintensitäten'; this word reveals that the writer's main preoccupation is with the powder diagram and probably of compounds structurally rather simple. This would explain his rather surprising statement that the temperature factor is the least important correction in structure analysis. One look in a recent volume of *Acta Crystallographica* would convince the author that most workers in the field do not take this view.

Tables pertaining to diffuse scattering are found in the third section of the book; finally, section *D* gives some generally useful tables such as wavelengths, radii of atoms and ions, logarithms *etc.*

In the sections *A*, *B* and *C* the tables proper are preceded by about ten pages each of introduction, in which a large amount of theoretical and sometimes practical information is given. The commendable shortness of exposition has sometimes led here to an inexact or unclear formulation, e.g. on p. 7 'der Winkel des Reflexes mit der vertikalen Mittellinie', or on p. 150 'die Vektordifferenz zwischen Einfalls- und Reflexionswinkel'. On p. 4 the description of the Nelson–Riley method might lead the unwary reader to the idea that extrapolation should be carried out towards low reflexion angles.

It is to be regretted that the number of printing errors is rather large. I have, of course, not been able to check all the tabular material, but I found some errors there also. The same numerical value for a physical constant is not always used throughout the book. On p. 4, the cell constant of Al is given as 4·04 Å, whereas from Table A 1 1 this should be 4·05 Å. Table A 2 uses Siegbahn's values for the *K* wavelengths of vanadium, Table D 4 the Cauchois–Hulubei values. On the other hand, there is a good reason for the discrepancy of Avogadro's number on p. 8 (consistent with the conversion factor 1·00202), and in Table D 1 ('best' values of fundamental constants), but this reason should have been given.

Apart from these criticisms, Dr Sagel is certainly to be congratulated on his achievement. The referee has enough experience in the matter of tables to be aware of the difficulties and she feels that these have in general been very elegantly overcome.

It is hoped that Messrs Springer will produce the next edition in cloth-bound form, and not as a 'paper-back'. This frail presentation cannot stand up to the wear and tear that is the best proof of the usefulness of the book.

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General Crystallography. (A Brief Compendium). By W. F. de Jong. Pp. ix+281, with 231 figs. and 41 tables. San Francisco and London: W. H. Freeman. 1959. Price $6·00 or 38*s*.

This book is based on the English translation of the author's 'Compendium der Kristalkunde'. A review of the original work has already been published in this journal (*Acta Cryst.* (1952), **5**, 858), as well as a review of the translation into German (*Acta Cryst.* (1959), **12**, 618). In this American edition, apart from the addition and revision of some diagrams, some sections have been enlarged; some of the sections dealing with solid-state physics have been rewritten. The author is indebted to his translators who, with very few blemishes, have produced an excellent English text. The book is well printed and produced, with very clearly drawn line-diagrams; for the description of crystal structures, however, even the best perspective line-drawings should be supplemented by projections of the atomic positions, and these are not used at all.

In a previous review, the price of the German edition was rightly described as outrageous; it is encouraging that the American & English publishers have been able to produce the book at a more reasonable price.

It is difficult to assess the purpose of this book. The author himself states that it is not primarily a textbook, but suggests that it will serve undergraduate students as a summary of the modern view of crystallography. The fields of geometric, structural, physical and chemical crystallography are now so extensive that in a slim volume of this kind very few topics can be adequately developed, and the student must turn to the fuller treatments given to more limited fields by other authors, to which there are many references; thus the value of the book for undergraduate teaching is very restricted.

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