

*Die Feldspäte und ihre praktische Bestimmung.* Von Dr. Karl Chudoba. Pp. x + 54 + 4 Tafeln. (Stuttgart: E. Schweizerbart'sche Verlagsbuchhandlung (Erwin Nägele) G.m.b.H., 1932.) 5 gold marks.

THIS book is intended primarily for the use of the working geologist and petrographer who require accurate but rapid methods of felspar determination applicable to thin sections.

The author has made a wise selection and only those methods are described which give simple and rapid determinations. Twelve pages are devoted to a short description of the general chemical, morphological and optical characters of the felspar group, the remainder of the work being concerned with determinative methods. The main interest naturally attaches to the determination of the plagioclase series, and each method is considered under the headings, "Principal of the Method", "Recognition of the Section", "Determinative Process", "Application of the Method" and "Control of the Determination".

Only the methods suitable for use with the ordinary polarising microscope are considered. Adaptations of these to the Fedorow stage (zonal method of Rittmann) are clearly described but the ordinary Fedorow methods are not treated as they cannot be recommended where speed is an essential. The book is well printed and the figures simple and clear. The text is free from all unnecessary theoretical complications and the book provides an admirable guide to all concerned with felspar determinations.

*Almost Periodic Functions.* By A. S. Besicovitch. Pp. xiii + 180. (Cambridge: At the University Press, 1932.) 12s. 6d. net.

THE present book by one of the earliest workers in the subject treated in it promises to become a standard work. In some 190 pages it gives an account of the fundamental theorems dealing with almost periodic functions apart from some special problems connected with differential and difference equations. The first chapter develops the theory of uniform almost periodic functions of a real variable, including the representation by generalised Fourier series and their summation. The second chapter gives various generalisations of almost periodic functions with applications of the Parseval equation and the Riesz-Fischer theorem, topics with which the author is especially familiar through his own researches. The third and last chapter gives an account of H. Bohr's theory of analytic almost periodic functions of a complex variable, their Dirichlet series and their behaviour in and on the boundary of a strip of uniform almost periodicity.

The book, from the abstract nature of its subject matter, makes difficult reading, but will prove most interesting to all those sufficiently well equipped with a knowledge of the theory of functions. It is well arranged and printed in the excellent style associated with the publications of the Cambridge University Press.

*The Nidification of Birds of the Indian Empire.* By E. C. Stuart Baker. Vol. 1: *Corvidæ—Cinclidæ.* Pp. xxiii + 470 + 8 plates. (London: Taylor and Francis, 1932.) 30s.

THE author, fresh from his triumphs of the "Fauna of British India" in eight volumes, has turned his specialist's knowledge to the nidification of the birds, mentioned in his former work. To show how busy the field naturalists have been we mention that the percentage of known eggs has risen from 48 per cent in Oates's work in 1889 to 82 per cent at the present time. The number given to the birds in this volume is the same as the number used in the "Fauna", so that the worker has no trouble in turning up any bird.

In the introduction is given a history of the century of work that has been done on Indian ornithology, with oology not considered until 1864. In 1869 the study of oology may be said to have been begun in a serious way by Hume. It is forty years ago since any book has been published solely on the nidification of Indian birds, so in this volume we again expect the last word on the subject. The author's own collection of eggs, numbering more than 200,000, places him in an authoritative position.

Baker reviews the oology of each species as systematically as possible. Complete breeding area is given, with a description of the place where nesting took place, and the season when eggs are to be found; then a description of the nest and eggs, all full and useful to the worker.

*Dielectric Phenomena. 3: Breakdown of Solid Dielectrics.* By S. Whitehead. Edited, with a Preface, by E. B. Wedmore. (Published for the British Electrical and Allied Industries Research Association, being Reference L/T. 42.) Pp. 346. (London: Ernest Benn, Ltd., 1932.) 30s. net.

THE present volume completes a survey of discharge phenomena in dielectrics. The previous volumes discussed the phenomena which occur in gases and liquids. The experimental evidence is presented first and is followed by a study of the theoretical work that has been published. The author says that when an electric stress is applied to solid insulation, only a small heating current passes initially. As the applied stress increases, the current also increases. At a certain critical value the current becomes unstable. The material can now no longer be regarded as a non-conductor. This sudden fall of resistance is usually taken as the criterion of breakdown. The most noticeable feature in a breakdown is usually the perforation caused in the dielectric, the material being decomposed, fused or volatilised, or the whole three effects may occur together. None of the theories given is very convincing but the author gives a clear presentation of all of them. The work will be helpful to research workers on this subject who are doubtless on the look-out for a theory that fits the experimental data. At the present time the problem appears to be a very difficult one.