papers comes forward now. The indexes (author and subject), which fill thirty-five pages, are commendably detailed.

This is a book of outstanding merit and a milestone on the road which Lauge Koch and others pursued and still follow: "to know and see always a little more of Greenland's geology".

J. W. COWIE

Glaciation

Glacier Ice. By Austin Post and Edward R. LaChapelle. Pp. 110 (130 photographs). (University of Washington: Seattle and London, 1971.) $20.

THIS book captures both the magnificent alpine scenery of glacier covered mountains and the fascination of nature, manifest sometimes in well ordered glacier patterns and at others in the chaotic jumble of an ice fall or the jagged penitents of a high snowfield in Chile. The regular bowed curves of the ogives, the long straight medial moraines typical of most glaciers, or the whorled moraines of a surging glacier all call out for an explanation.

Such explanations are provided by two experienced glaciologists with a special knowledge of the mountains and glaciers of the north-west of North America. Austin Post is well known for his use of aerial photography as an aid to glaciological investigations, while Edward LaChapelle of the University of Washington, Seattle, has made many contributions to the study of ice crystals, avalanches and glacier flow. Together they have produced a book of character.

Although *Glacier Ice* would grace any coffee table with its superb black-and-white photographs in a large landscape format, it is primarily a reference book of glacier photographs. These are arranged in sections to illustrate various aspects of glaciology ranging from glacier formation, mass balance and surface features, to the flow of glaciers, surging glaciers, moraine formation, glacial landscapes and differences in appearance of temperate, sub-polar and polar glaciers.

Accompanying the photographic material is an authoritative text which, without use of mathematics or complex physical terminology, describes the phenomena in the photographs. A useful glossary of glacier terms is included.

One can only make minor criticisms of this production. Perhaps more use of diagrams (there is only one) to explain phenomena would have helped the layman. The brief section on the Antarctic does not succeed in giving the reader a feel for the vast scale of the phenomena, especially in relation to

the Ross Ice Shelf. The authors are primarily "mountain" glaciologists, however, and more than ninety per cent of their photographs deal with phenomena in mountain regions. They have done an excellent job which can be recommended both as an aid to teaching and especially to those who have been fascinated by seeing a few glaciers in nature and wish to learn more for their own satisfaction.

G. DE Q. ROBIN

Photochemistry

Annual Survey of Photochemistry. By Nicholas J. Turro *et al.* Vol. 3. Pp. x+382. (Wiley: New York and London, August 1971.) £9.50.

Photochemistry. Vol. 2. Senior reporter, D. Bryce-Smith. Pp. xvii+817. (The Chemical Society: London, May 1971.) £12.

THESE are continuing volumes of two annual series which survey one year's literature in the popular area of photochemistry. The volumes do not quite overlap; the survey by Turro *et al.* covers the 1969 literature, while the Chemical Society (CS) volume covers the period July 1969–June 1970.

The Turro book is in three parts. The first part, which is on organic photochemistry and contains 1,071 references, provides requisite coverage but is in many ways unsatisfactory. There is usually only a brief summary comment on each paper, which gives little indication of the detailed content of the paper (for example, reaction conditions, quantum yields, rate constants, basis for mechanistic conclusions and so on) except in rare instances where actual data are presented There is an unfortunately large number of typographical errors, mostly in structures. It is useful as a quick superficial view of what has been done, and the interested reader can find the details in the references. I find Part II by Leonard and Hammond, which deals with photophysical processes of organic compounds (1,052 references), more satisfactory, for the subject matter is grouped into several very useful tables (for example, polymolecular effects in absorption spectroscopy, radiative decay of excited states, and so on), continuing the format established in the previous volume of the series. There is also a general discussion of progress in the area of photophysical processes, with valuable commentary and assessment of key contributions reported during the year. The short third part on co-ordination complexes is in the form of a discussion with editorial commentary.

The CS volume is subdivided into smaller sections than the Turro volume and provides a detailed discussion of the contents of the literature for the period covered, including experimental design, primary data including many tables, graphs and spectra, kinetic schemes, rate equations, and the main arguments presented in the original paper, with critical commentary. Thus the CS survey is far more comprehensive than the Turro survey, and includes sufficient background on most topics to provide a context for discussion of recent papers, whereas this is almost never the case in the Turro volume. A reader relatively non-conversant with the background literature in photochemistry could benefit from the CS survey, but would be generally at sea in the Turro survey, except perhaps in Part II. The introduction and general review of the year in the CS volume by Bryce-Smith, the senior reporter, is interesting as an overview of progress in photochemistry by an acknowledged expert. Both volumes include author indices.

I personally refer to the CS volumes more frequently than to the Turro surveys, although both are useful. Because they are expensive, it is doubtful whether most photochemists will want to purchase both volumes, in which case I would recommend the CS survey. Professional libraries in laboratories and institutions with activity in photochemistry should preferably have both volumes in their collection.

DAVID I. SCHUSTER

High Magnetic Fields

Pulsed High Magnetic Fields: Physical Effects and Generation Methods Concerning Pulsed Fields up to the Megaoersted Level. By Heinz Knoepfel. Pp. xxii+372. (North-Holland: Amsterdam and London, 1970.) £8.40.

THE production of intense steady magnetic fields is, and always has been, a costly business. It is therefore not surprising that the pattern which has