

the United States would violate such laws designed to protect the security of the United States.

51.137 *Notification to Person Whose Passport Application Is Tentatively Disapproved.* A person whose passport application is tentatively disapproved under the provisions of ¶ 51.135 or ¶ 51.136 will be notified in writing of the tentative refusal, and of the reasons on which it is based, as specifically as in the judgment of the Department of State security considerations permit. He shall be entitled, upon request, and before such refusal becomes final, to present his case and all relevant information informally to the Passport Division. He shall be entitled to appear in person before a hearing officer of the Passport Division, and to be represented by counsel. He will, upon request, confirm his oral statements in an affidavit for the record. After the applicant has presented his case, the Passport Division will review the record, and after consultation with other interested offices, advise the applicant of the decision. If the decision is adverse, such advice will be in writing and shall state the reasons on which the decision is based as specifically as within the judgment of the Department of State security limitations permit. Such advice shall also inform the applicant of his right to appeal under ¶ 51.138.

51.138 *Appeal by Passport Applicant.* In the event of a decision adverse to the applicant, he shall be entitled to appeal his case to the Board of Passport Appeals provided for in ¶ 51.139.

51.139 *Creation and Functions of Board of Passport Appeals.* There is hereby established within the Department of State a Board of Passport Appeals, hereinafter referred to as the Board, composed of not less than three officers of the Department to be designated by the Secretary of State. The Board shall act on all appeals under ¶ 51.138. The Board shall adopt and make public its own rules of procedures, to be approved by the Secretary, which shall provide that its duties in any case may be performed by a panel of not less than three members acting by majority determination. The rules shall accord applicant the right to a hearing and to be represented by counsel, and shall accord applicant and each witness

the right to inspect the transcript of his own testimony.

51.140 *Duty of Board to Advise Secretary of State on Action for Disposition of Appealed Cases.* It shall be the duty of the Board, on all the evidence, to advise the Secretary of the action it finds necessary and proper to the disposition of cases appealed to it, and to this end the Board may first call for clarification of the record, further investigation, or other action consistent with its duties.

51.141 *Bases for Findings of Fact by Board.* (a) In making or reviewing findings of fact, the Board, and all others with responsibility for so doing under ¶ 51.135–51.143, shall be convinced by a preponderance of the evidence, as would a trial court in a civil case.

(b) Consistent and prolonged adherence to the Communist Party line on a variety of issues and through shifts and changes of that line will suffice, prima facie, to support a finding under ¶ 51.135 (b).

51.142 *Oath or Affirmation by Applicant as to Membership in Communist Party.* At any stage of the proceedings in the Passport Division or before the Board, if it is deemed necessary, the applicant may be required, as a part of his application, to subscribe, under oath or affirmation, to a statement with respect to present or past membership in the Communist Party. If applicant states that he is a Communist, refusal of a passport in his case will be without further proceedings.

51.143 *Applicability of Sections 51.135–51.142.* When the standards set out in ¶ 51.135 or ¶ 51.136 are made relevant by the facts of a particular case to the exercise of the discretion of the Secretary under ¶ 51.75, the standards in ¶ 51.135 and 51.136 shall be applied and the procedural safeguards of ¶ 51.137–51.142 shall be followed in any case where the person affected takes issue with the action of the Department in granting, refusing, restricting, withdrawing, cancelling, revoking, extending, renewing, or in any other fashion or degree affecting the ability of a person to use a passport through action taken in a particular case.

For the Secretary of State,  
W. K. SCOTT

Acting Deputy Under Secretary

## Book Reviews

*The Physical Chemistry of Surface Films.* William D. Harkins. New York: Reinhold Pub., 1952. 413 pp. \$10.00.

The writing of this book was undertaken by Harkins during the last year of his long and busy career as a scientist and teacher. Thanks to the assistance of several devoted former students and associates, the manuscript was completed and edited in less than a year after Harkins' death.

In a brief foreword, P. Debye calls attention to the author's tremendous productivity, experimental skill, and thoroughness. This is followed by an understanding introduction and tribute by Harkins' associate, T. F. Young. Chapters are devoted to "The Nature and Energies of Surfaces," "Films on Liquids," "Films on Solids," "Properties of Soap Solutions," and "Mechanism of Emulsion Polymerization;" the final chapter,

contributed at Harkins' invitation by E. J. W. Verwey, concerns "The Role of the Electrical Double Layer in the Behavior of Lyophobic Colloids."

The major portion of the text is made up of numerous sections reproduced almost verbatim from original papers by Harkins and his co-workers or from reviews prepared by Harkins for various journals and books, particularly his relatively recent contributions to Alexander's *Colloid Chemistry* and to Weissberger's *Physical Methods of Organic Chemistry*. New matter in the form of discussions will be found here and there, especially in the chapters concerning films on solids, soap solutions, and emulsion polymerization. The first two chapters are somewhat marred by the use of many unretouched small diagrams taken from early original papers and by printing upside down the figure on page 300.

In many ways the title of this book is misleading. It is not a review of the field indicated by the title, nor is it a treatise on the subject—instead, it is an up-to-date and full review of the contributions to that field by Harkins and his co-workers. It represents Harkins' final evaluation of a lifelong project. Contributions by other investigators are generally referred to or discussed insofar as they illuminate or provide necessary background for understanding or evaluating his work. Hence, classic theoretical contributions on surface tension phenomena by Laplace, Kelvin, Verschaffelt, and Guggenheim are ignored, and basic experimental contributions by Langmuir, Adam, Rideal, Joly, Sugden, Bangham, McBain, and Bowden have either been omitted or given casual mention. The omissions are too numerous to count; as examples, nothing is said of the contributions of Bartell, Powney, McCleod, Trillat, Sebba and Briscoe, and Wenzel.

This volume is not suitable for use as a textbook nor as a general reference for technical workers. It is an incomplete exposition of the subject, its style and organization make it difficult to read, and no one but an expert could read it without getting a most incorrect historical perspective of the subject. Unquestionably, it will be a valuable reference to investigators of surface films and their properties as the best single source of information on the work of Harkins and his many able students and associates. Most important of all, the book is a monument to a scientist whose enthusiasm, meticulous care, and skill in the study of the behavior of surfaces and molecular films brought him world fame.

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***Progress in Biophysics and Biophysical Chemistry***, Vol. 2. J. A. V. Butler and J. T. Randall, Eds. New York: Academic Press; London: Pergamon Press, 1951. 323 pp. \$8.00.

***International Review of Cytology***. Vol. I. Prepared under the auspices of the International Society for Cell Biology. G. H. Bourne and J. F. Danielli, Eds. New York: Academic Press, 1952. 368 pp. \$7.80.

There is a world of difference between the two volumes recently published by the Academic Press: *Progress in Biophysics* is exceedingly good, but the *International Review of Cytology* is disappointing. This contrast seems strange when it is realized that biophysics is a relatively narrow category of techniques, whereas cell biology is an extremely broad field underlying almost all paths of biological study. Subject matter, however, is not responsible for the disparity in quality between the two volumes—success and failure would appear to rest largely with the editors of the respective reviews.

From their preface to Volume 1 of *Progress in Biophysics*, it is apparent that Butler and Randall approached their task modestly—and properly so. Contributors were unceremoniously instructed to write critical reviews “which may be read with profit by

many who are not experts and which will provide scientists with a general survey of recent work and ideas.” In reading Volume 2 it is possible at once to sense the effort that the editors have expended and to appreciate the ably written and properly guided contributions. Of the eight constituent articles two may prove difficult to many biologists. Both Jordan's review of the “Physicochemical Properties of the Nucleic Acids” and Wyke's review of the “Biophysical Aspects of Nervous Function” are, to the nonspecialist, difficult reading. The remaining six, however, are well composed. “Birefringence of Cytoplasm and Cell Membranes,” a critical account by Swann and Mitchison, is brief and to the point. Preston has contributed an orderly and understandable treatment of cellulose structure. Pirene's discussion of the quantum physics of vision is unusually lucid; physical data are explained in terms that are understandable and stimulating to biologists in general. Gray has provided a good general account of the biological action of ionizing radiations, and Wyckoff has ably discussed the electron microscopy of plant and animal viruses. Sinclair and Lamerton's review of the physical principles underlying the use of radioactive isotopes will almost certainly prove valuable to all those concerned—and they are many.

In the preface to the *International Review of Cytology* one learns that the editors are conscious of the broad nature of their field and that they harbor pretentious aims, but one of the principal duties of editorship—to delineate the area of survey with some measure of specificity—is passed off with the vague proposal to keep the scope of the series “as wide as possible.” So fine an aim might be welcomed in the case of fields that are loosely defined, but cell biology can easily be conceived to include reviews of enzymology, protein chemistry, biophysics, etc. If it is the objective of the editors to embrace all these allied fields, then this reviewer considers the project nonsensical; if the editors have a more limited and useful plan it remains thus far unknown to the reader, for the first volume reflects little if any planning. It reads like the collected works of a diversified research institute, not like a book designed to serve the needs of cell biologists. It would serve no purpose to appraise each contribution singly, especially since it is the critic's opinion that the deficiencies of many of the articles are in large measure attributable to the editors. A few examples will therefore suffice.

The review of nuclear reproduction by C. L. Huskins is a babel of ideas that warranted presentation at the 1950 Congress of Cell Biology, but not in a solid and reasoned review of progress in the field. Goldacre's account of “The Folding and Unfolding of Protein Molecules as a Basis of Osmotic Work” is an expanded speculation based on a correlation between protoplasmic streaming and dye absorption. Brevity would have done the idea justice, and an enlarged consideration of other approaches to osmotic work would have done the readers a more bountiful service. To be sure, the merits of the articles as such are not in question; what is