economic, political, social, and biological problems inherent in regulating the salmon fishery and notes that none of these were resolved by the simple device of transferring jurisdiction. The underlying pattern of cutthroat competition in the free and open fishery is unchanged. It remains to be proven that the new state government can cope with the situation better than the federal bureau. In any event, this clearly written volume will provide everyone involved with a much better perspective of the problem.

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Comprehensive Resume

Tektites. John A. O'Keefe, Ed. University of Chicago Press, Chicago, 1963. xii + 228 pp. Illus. $10.95.

Tektites, small glassy objects that are found in limited regions on Earth under circumstances which preclude a volcanic origin, have intrigued those scientists who have examined them carefully, ever since they were first mentioned (1788, from Bohemia) in scientific literature. However, until about 10 years ago, these scientists were comparatively few in number, and much of the earlier literature is widely scattered and not easily accessible. The great upswing in meteorite research in the postwar years attracted more general interest in tektites, and the suggestion that they may represent lunar material has provided a further stimulus to their intensive investigation. As a result a tremendous amount of new data has become available. These data, and the deductions that can be drawn therefrom, are admirably presented in this book. It consists of the following nine chapters: "Form and sculpture of tektites," by George Baker (24 pp.); "Tektite strewn-fields," by Virgil E. Barnes (26 pp.); "The petrographic and chemical characteristics of tektites," by E. C. T. Chao (44 pp.); "The chemical composition of tektites," by C. C. Schnetzler and W. H. Pinson, Jr. (35 pp.); "The physical properties and gas content of tektites," by Irving Friedman (7 pp.); "Isotopes in tektites," by J. Zähringer (13 pp.); "Aerodynamic analysis of tektites and their hypothetical parent bodies," by Ernest W. Adams (17 pp.); "The origin of tektites," by John A. O'Keefe (22 pp.); "Asteroid—or comet—impact hypothesis of tektite origin: the moldavite strewnfields," by Alvin J. Cohen (24 pp.).

The authors are all men who have been in the forefront of tektite research, and John O'Keefe deserves congratulations and thanks for having persuaded them to join with him in preparing this book, which fills a real need. All the papers are thoroughly up-to-date, with references as late as 1962, and a tremendous amount of new information, particularly on the chemical composition—major, minor, and trace elements—is presented. With all this new information, however, the basic question—"Are tektites meteorites?" or perhaps more carefully stated "Are tektites of terrestrial or of extraterrestrial origin?"—remains a matter of opinion and controversy. However, the possibilities appear to have been narrowed to an origin by meteorite splash from the lunar surface or to one by asteroid or comet impact on the Earth's surface. A refreshing feature is the careful separation of fact from deduction and hypothesis and the absence of dogmatism. Although individual authors usually favor one or the other of the above possibilities, they present their data fairly and do not minimize the unsolved problems that remain. This book is an outstanding synthesis of our present knowledge of tektites, and it should be a stimulus to further investigations on these remarkable and enigmatic bodies.

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Mitosis

The Cell in Mitosis. Proceedings of the symposium held under the provisions of the Wayne State Fund Research Recognition Award (Detroit, Michigan), November 1961. Laurence Levine, Ed. Academic Press, New York, 1963. xii + 274 pp. Illus. $10.

This is one more incarnation of one more symposium on a popular topic—mitosis. To invoke those standards of judgment which should be applied to a *book* would be unfair to the editor and the contributors; fully to ignore those standards would be unfair to prospective readers. My dilemma is a familiar one, and my easiest out is to say that this particular volume matches the quality of a number of others which have been published in the past two years. The topic is necessarily diffuse and almost impossible to deal with both comprehensively and pithily. Any symposium organizer who manages to achieve a pattern of discussion different from that of the preceding symposia on the same topic is to be congratulated; this much Levine has achieved.

Although the book contains discussions on both structural and metabolic features of mitosis, the weight of emphasis is in favor of the structural ones. A venerable and classical topic, the centriole, is discussed lengthily by Cleveland and Burke. The fine structure of the cleavage furrow is treated briefly by Buck. Rehbun roams extensively about the subject of cytoplasmic particle movements and their possible significance in interpreting mechanical work performed by the endoplasmic reticulum which, in turn, could possibly be related to polar movements in mitosis. Elliott interrupts the sequence of generalized titles with a contribution on the fine structure of *Tetrahymena* during mitosis, but his article together with Ray's discussion of it are as broad in their target as the others. Zimmerman effectively summarizes chemical analyses of the isolated mitotic apparatus, supplemental information being supplied by Rustad in his discussion. Bloch discusses a now popular topic, the regulatory functions of histones; his discussion, though pertinent to mitosis, is framed in the general context of genetic regulation. Andrew Szent-Gyorgi analyzes the problem of contractility; he correctly makes no effort to center his analysis on mitosis but restricts himself to the much better studied phenomenon of muscle behavior. Two articles are addressed to metabolic problems. Scherbaum sets forth the chemical prerequisites for division based on studies of *Tetrahymena*, and the discussant, Gelfant, initiates a discussion that leads to some questions about the validity of this organism as a general model. Wilson covers the work of his group on the action of antimitotic agents, and Biesele rounds out the presentation with a broad discussion of Wilson's findings.

A reader who turned to this book for a general knowledge of mitosis would, of course, be disappointed. So too would one who sought for a deep analysis of all the major problems underlying mitosis. I prefer to assume,