Biorheology, 1962, Vol. 1, pp. 77–78. Pergamon Press Ltd. Printed in Great Britain.

RHEOLOGICAL LITERATURE

THE EDITORS-IN-CHIEF felt that it would be helpful to include in the first number of "Biorheology", a brief list of books on general rheology which might be of interest to biologists to whom rheology is a comparatively new field. The list is not intended to be comprehensive nor is the absence of any book to be taken as a criticism. Classics, written long ago and now of historical interest only, are not listed. The compiler (G.W.S.B.) is indebted to Bulletin No. 4 (1960) of the British Society of Rheology for refreshing his memory. A few books and monographs on Biorheology are also listed.

BARKAS, W. W. **The Swelling of Wood under Stress.** (D.S.I.R.) H.M. Stationery Office, London, 1949.
In spite of the title, this book is of interest to those concerned with elasticity of anisotropic material such as bone.

BERGEN, J. T. (Editor), **Viscoelasticity: Phenomenological Aspects.** Academic Press, New York, 1960.
A Symposium sponsored by the Armstrong Cork Co. dealing with those aspects of rheological theory which are not concerned with molecular structure—specifically visco-elastic and elastico-viscous behaviour.

BOOIJ, H. L. and BUNGENBERG DE JONG, H. G. **Biocolloids and their interactions. Protoplasmatologia, Handbuch der Protoplasmaforschung,** HEILBRUNN, L. V. and WEBER, F. (Editors) vol. 1, part 2, pp. 162. Springer Verlag, Wien, 1956.
The volume includes special references to coacervates and related systems. Of particular interest are the chapters on elastic-viscous systems of association colloids and biological membranes as well as their remarks on the colloid chemistry of protoplasm including the submicroscopic structure of cytoplasm and protoplasmic flow.

BOWDEN, F. P. and TABOR, D. **Friction and Lubrication.** Clarendon Press, Oxford, 1954.
Of value to all concerned with frictional problems.

BURGERS, J. M. and SCOTT BLAIR, G. W. **Report on Principles of Rheological Nomenclature.** N. Holland Publ. Co., Amsterdam, 1949.

EIRICH, F. R. (Editor.) **Rheology: Theory and Applications.** Academic Press, New York. 3 vols. 1956, 1958, 1960.
Essays on all kinds of rheology except biorheology. Many admirable "survey" articles.

GROSS, B. **Mechanical Structure of the Theories of Viscoelasticity.** Hermann et Cie, Paris, 1953.
An advanced book. Useful for the understanding of such concepts as complex moduli, retardation and relaxation spectra and the like.

KAMIYA, N. **Protoplasmic streaming. Protoplasmatologia, Handbuch der Protoplasmaforschung,** HEILBRUNN, L. V. and WEBER, F. (Editors), vol. 8, part 3a, pp. 199. Springer Verlag, Wien, 1959.
This survey on protoplasmic streaming is a helpful guide through the vast literature up to the present. Of interest is that basic knowledge about protoplasmic streaming has been already established by Hofmeister in 1867. The field is extremely rich in biorheological phenomena which are of interest to biologists and rheologists alike. The book is recommended highly and may well prove to be a classic among books dealing with fundamental studies towards a better understanding of living matter.

MERRINGTON, A. C. **Viscometry.** Arnold & Co., London, 1949.
Based on Barr's classic on viscometry, this little book gives much useful information on the use and theory of the best-known types of viscometer.

MILL, C. C. (Editor) **Rheology of Disperse Systems.** Pergamon Press, London, 1959.
The Proceedings of a Conference of the British Society of Rheology held in September, 1957. Contains several papers concerned with dispersed suspensions flowing in tubes.

REINER, M. **Lectures on Theoretical Rheology.** N. Holland Publ. Co., Amsterdam, 1960.
An advanced book but essential to those attempting tensor theory for the first time.

REINER, M. **Deformation, Strain and Flow.** Lewis, London, 1960.
A general textbook from the engineering angle, less difficult than the "Lectures".

SCOTT BLAIR, G. W. and REINER, M. **Agricultural Rheology.** Routledge and Kegan Paul, London, 1957.
Part 1 (General Principles) gives a summary of elementary rheology. Part 2 (Applications) includes agricultural and some biorheological applications.

SCOTT BLAIR, G. W. **An Introduction to Industrial Rheology.** Churchill, London, 1938.
Though very old, this book contains an elementary treatment of general rheology and may still be of use to the beginner.

SCOTT BLAIR, G. W. A **Survey of General and Applied Rheology.** Pitman, London, 1949.
The first part gives a historical and theoretical survey of the subject at intermediate level. The second part is concerned with psychophysical aspects. Summaries of many papers are included.

SPECIFICALLY BIORHEOLOGICAL BOOKS AND MONOGRAPHS

COPLEY, A. L. and STAINSBY, G. (Editors), **Flow Properties of Blood and Other Biological Systems.** Pergamon. London, 1960.
An account of a Symposium of the Faraday Society and the British Society of Rheology, Oxford, 1959.

FREY-WYSSLING, A. (Editor) **Deformation and Flow of Biological Systems.** N. Holland Publ. Co., Amsterdam, 1952.
A comprehensive collection of essays with an account of the Lund Symposium on Biorheology as an appendix.

HEILBRUNN, L. V. **The Viscosity of Protoplasm. Protoplasmatologia, Vol. 2.** Springer, Vienna, 1958.
An exhaustive survey including some 300 references.

KAMIYA, N. **Protoplasmic Streaming. Protoplasmalogia, Vol. 8.** Springer, Vienna, 1959.

SCOTT BLAIR, G. W. **Rheology in Relation to Pharmacy and Medicine.** Pharmaceutical Press, London, 1948.
Two London University lectures summarizing the subject to date.

PROCEEDINGS OF INTERNATIONAL CONGRESSES ON RHEOLOGY

1st Congress Scheveningen, Holland, 1948. North Holland Publishing Co., Amsterdam, 1949.
2nd Congress Oxford, England, 1953, HARRISON, V. G. W. (Editor). Butterworth Scientific Publications, London, 1954.
3rd Congress Bad Oeynhausen, W. Germany, 1958. Published in Vol. 1 of *Rheologica Acta*, Steinkopf, Darmstadt, 1958, 1961.

RHEOLOGY JOURNALS AND ABSTRACTS

Rheologica Acta is the only other journal entirely devoted to rheology.
The Journal of Rheology was published from 1929–1932 by the American Institute of Physics.
From 1947–1952 *The Journal of Colloid Science* published annual rheology issues.
From 1953–1956 *The Journal of Applied Physics* published special rheology numbers, recording the Proceedings of the (American) Society of Rheology. Since 1957 these have been published as *The Transactions of the Society of Rheology* (Interscience).
Most national rheological societies publish rheological abstracts.