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FOUNDED in 1929, less than two years before the formation of the American Institute of Physics, the Society of Rheology was created to promote in all possible ways the study of the deformation and flow of matter. Prior to 1929, there was no single word adequate to define this particular field, including the subjects of elasticity, viscosity, and plasticity; the term "rheology" was therefore coined from the Greek "to flow" and "science" and was defined as "the science of the deformation and flow of matter". In recent years the word has become a standard part of the modern scientific vocabulary.

The Society of Rheology has approximately four hundred members and is made up of physicists, chemists, biologists, and engineers who have a common interest in the advancement of rheology and its applications. As a field, rheology includes the study of the mechanical properties of all types of materials from elastic solids to viscous fluids. Applications of rheology have for the most part been found in the field of materials processing and testing.

Historically, the earliest steps leading to the formation of the Society can be traced to the year 1926, when the First Plasticity Symposium was held at Lafayette College in Easton, Pennsylvania. This symposium was organized largely as a result of the efforts of the late Eugene C. Bingham, professor of chemistry at Lafayette College. The enthusiastic response by those attending the conference made it apparent that plasticity, a field which had previously received little specific attention, was really of considerable interest to many scientists. In view of the success of the symposium, similar conferences were organized during the following years, and at the Third Plasticity Symposium it was voted by those attending that a committee be appointed to form a permanent organization. This committee met in Columbus, Ohio, on April 29, 1929 to formulate a plan of the new organization and to draft a constitution and a set of by-laws. The first official meeting of the resulting Society of Rheology was held for purposes of organization on December 19, 1929, at the National Bureau of Standards in Washington, D. C. The Society's charter membership reached a total of 166.

The views of various scientists, both from this country and abroad, were carefully considered in deciding to form a new scientific society in a period that had seen the birth of a great many organizations in specialized scientific fields, but it was the prevailing opinion that a society of rheologists was desirable and that adequate discussion of papers on plasticity could best

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be obtained by meeting apart from any existing organizations. Provisions were made for annual meetings of the group, with the first meeting scheduled to take place about one year following the Third Plasticity Symposium. Since 1949, a second annual meeting has been held in the western United States by the recently formed West Coast Section of the Society.

The first official journal of the Society was the *Journal of Rheology*, which until 1933 was published quarterly with the help of funds provided by the Chemical Foundation. This journal was discontinued in 1933 and rheology papers were then included in the Rheology Section of *Physics* (later the *Journal of Applied Physics*). In 1937, the Society initiated an independent quarterly, the *Rheology Leaflet*, under the editorship of Wheeler P. Davey of the School of Chemistry and Physics at the Pennsylvania State College, who had served as the Society's first president. The name of the publication was subsequently changed (in 1940) to the *Rheology Bulletin*. The *Bulletin*, which contained news items of interest to members of the Society and abstracts of papers, was published continuously until 1947, at which point it was temporarily abandoned. Arrangements had been made at that time with the Academic Press to collect and publish papers on rheology in one yearly issue of the *Journal of Colloid Science*. Rising printing costs, however, coupled with increasing demands placed on the latter journal to publish other worthwhile material, forced the Academic Press to restrict to one hundred the number of pages set aside for the annual Rheology Issue of the *Journal of Colloid Science*. Two mimeographed newsletters were issued by the Society during 1949 in response to a demand from members for a return to some form of publication for Society news. In 1950, the printed *Rheology Bulletin* reappeared as a four-page, semiannual newsletter. The editor for the Society is W. H. Markwood, Jr. of the Hercules Experiment Station in Delaware.

In 1931, the Society collected and published the *Rheology Index*, which listed all important published works (a total of approximately five thousand papers) on rheological subjects; a second index of about the same size was compiled several years later. The Society also sponsored Professor Bingham's plans for publishing a series of reprints and translations of some of the early and important papers in the field.

The Society of Rheology has cooperated with various other agencies and organizations, including the National Bureau of Standards and the British Rheologists' Club,

to establish an internationally accepted system of rheological standards and nomenclature. As early as 1930, the Society had formed a committee on terminology, definitions, and standards which was concerned not only with finding hopeful solutions to problems brought about by the occasionally chaotic and ambiguous rheological nomenclature, but also with establishing fundamental standards of measurement vital to progress in rheological subjects. In the latter connection, the Society of Rheology has cooperated with the National Bureau of Standards in a precision determination of the viscosity of water, a matter of considerable interest to experimentalists in many scientific fields.

Application for membership in the Society of Rheology may be made by any person or institution interested in the purposes of the Society. Application forms are submitted to the Secretary, who refers the applications to a standing membership committee for approval. Since the time of its formation, the Society has been composed of specialists in various fields, most of whom are also active in other professional scientific organizations. In view of the generally high degree of specialization of its members, and of the field of rheology itself, the Society has not established specified standards for admission to membership; each application is thus considered solely on its individual merits. Only two categories of membership have been established by the Society (Members and Sustaining Members) and the Society does not elect Fellows.

Professor Bingham, whose efforts led to the founding of the Society of Rheology, died in 1945. In his memory, one edition of the *Rheology Bulletin* (Volume 17, No. 1, May, 1946) was published as the "E. C. Bingham Memorial Edition" and contained a host of tributes from individuals and organizations in appreciation of his contributions to science. Two years later, the Society took steps to establish its Bingham Memorial Award for outstanding work in the field of rheology. The first Bingham Medal was awarded in 1948 to Melvin Mooney, physicist in the U. S. Rubber Company's laboratories who served as the Society's president from 1936 to 1940. Henry Eyring, professor of chemistry and dean of the graduate school at the University of Utah, received the medal in 1949, and last year's award was presented to W. F. Fair, Jr. of the Koppers Co. and Mellon Institute of Industrial Research, also a past president of the Society.

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