# ASTM Materials Science Series—2

Symposium on

MAJOR EFFECTS OF MINOR CON-STITUENTS ON THE PROPERTIES OF MATERIALS



Published by the AMERICAN SOCIETY FOR TESTING AND MATERIALS 1916 Race St., Philadelphia 3, Pa.

ASTM Special Technical Publication No. 304

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# SYMPOSIUM ON MAJOR EFFECTS OF MINOR CONSTITUENTS ON THE PROPERTIES OF MATERIALS

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#### FOREWORD

The papers in this symposium were presented at the Third and Sixth Sessions on June 26, 1961, of the Sixty-fourth Annual Meeting of the Society in Atlantic City, N. J. Co-chairmen of the Symposium Committee and presiding at the two sessions were I. V. Williams, Bell Telephone Laboratories and John D. Sullivan, Battelle Memorial Inst. Other members of the Symposium Committee were A. C. Webber, E. I. du Pont de Nemours and Co., ASTM President A. A. Bates (1960-61), Portland Cement Assn., and F. L. LaQue, The International Nickel Co. All were members of the Executive Committee, ASTM Division of Materials Sciences.

Note.—The Society is not responsible, as a body, for the statements and opinions advanced in this publication.

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THIS PUBLICATION is one of many issued by the American Society for Testing Materials in connection with its work of promoting knowledge of the properties of materials and developing standard specifications and tests for materials. Much of the data result from the voluntary contributions of many of the country's leading technical authorities from industry, scientific agencies, and government.

Over the years the Society has published many technical symposiums, reports, and special books. These may consist of a series of technical papers, reports by the ASTM technical committees, or compilations of data developed in special Society groups with many organizations cooperating. A list of ASTM publications and information on the work of the Society will be furnished on request.

