

**Flammfestmachen von Kunststoffen—Dr. Hans Vogel**, 184 pp DM 17.80  
Dr. Alfred Hutling Verlag, Heidelberg.

This book deals with a subject matter which is intriguing scientifically and of great importance practically. Organic polymers could invade many new markets and could give much more satisfactory services in present applications if they were more flame resistant. As a consequence much effort has been concentrated on the study of the combustion mechanism of solid polymers, the synthesis of incombustible species and the use of additives which reduce flammability and either prevent combustion completely or keep in controllable limits.

The first fourth of the volume (up to page 40) presents the basic facts and ideas about the flammability and combustion of organic polymers, distinguishes three classes—non-flammable, flammable but not supporting combustion and flammable and burning. The text then enumerates the different flameproofing agents, describes their application and discusses the probable reasons for their action and eventually existing unwelcome side effects. This is the most interesting and stimulating part of the book because it does not only familiarize the reader with existing materials and their effects but provides also attractive hints for the development of improved new materials.

The bulk of the book describes in considerable detail and with surprising completeness the application of flame proofing agents of various types on the most important polymers and the methods with the aid of which polymers with improved flame resistance are made and used. This part, necessarily consists of a systematic and dry listing of patents and articles which is not a truly readable text but a most valuable help for everybody who is charged with solving a specific problem of flameproofing.

Although this is a very useful volume, lucidly written and equally valuable for chemists and engineers who want to get a birdseye view of the field and for those who are interested in immediate improvements of a given system.

*H. Mark*

Polytechnic Institute of Brooklyn  
333 Jay Street  
Brooklyn, New York 11201