

***FIRE SAFETY***  
***Science and Engineering***

— ***T. Z. HARMATHY*** —

*editor*

***STP 882***



# FIRE SAFETY: SCIENCE AND ENGINEERING

A symposium  
sponsored by  
ASTM Committee E-5  
on Fire Standards  
and by The Society of  
Fire Protection Engineers  
Denver, CO, 26-27 June 1984

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# Foreword

This publication contains papers presented at the Symposium on Application of Fire Science to Fire Engineering, held in Denver, CO, on 26-27 June 1984. Sponsors of the event were ASTM Committee E-5 on Fire Standards and the Society of Fire Protection Engineers. The event was organized by Subcommittee E-5.32 on Research. T. Z. Harmathy of the National Research Council of Canada served as symposium chairman and as the editor of this publication.

The editor wishes to thank all those who contributed to the success of the symposium: members of Task Group No. 9 of ASTM Subcommittee E-5.32 and staff members of the Society of Fire Protection Engineers who helped in organizational matters; the authors of the papers with months or even years of hard work behind their presentations; ASTM staff who provided administrative support and monitored the reviewing of the papers; and, of course, the 72 referees who accepted the thankless but important task of reviewing the papers.

## Related ASTM Publications

Fire Resistive Coatings, STP 826 (1983), 04-826000-31

Behavior of Polymeric Materials in Fire, STP 816 (1983), 04-816000-31

Flammability and Sensitivity of Materials in Oxygen-Enriched Atmospheres,  
STP 812 (1983), 04-812000-17

Fire Risk Assessment, STP 762 (1982), 04-762000-31

Design of Buildings for Fire Safety, STP 685 (1979), 04-685000-31

Fire Standards and Safety, STP 614 (1976), 04-614000-31

## A Note of Appreciation to Reviewers

The quality of the papers that appear in this publication reflects not only the obvious efforts of the authors but also the unheralded, though essential, work of the reviewers. On behalf of ASTM we acknowledge with appreciation their dedication to high professional standards and their sacrifice of time and effort.

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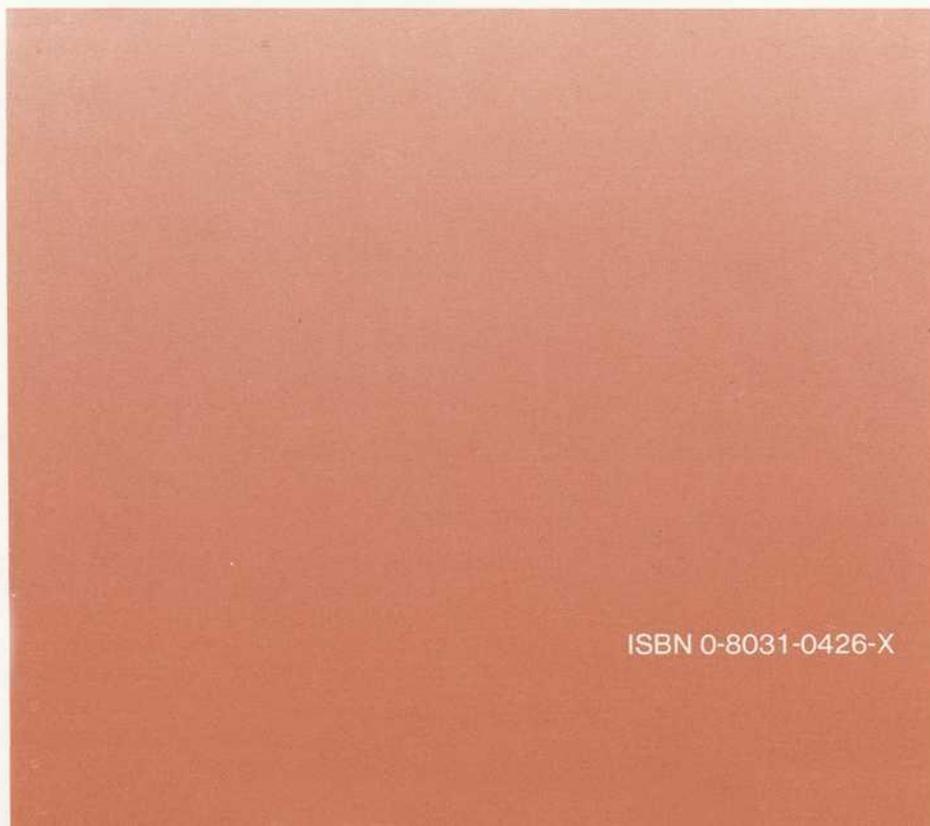
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