



## CONTENTS

DELEGATES AND LECTURERS	vii
-------------------------	-----

PREFACE	ix
---------	----

### Introduction. The MA-1 and Other Time-of-flight Mass Spectrometers

D. C. DAMOTH

### APPLICATIONS OF TIME-OF-FLIGHT MASS SPECTROMETERS

#### Flash Photolysis Reactions

R. T. MEYER and D. PRICE 23

#### Flash Pyrolysis Reactions

W. K. JOY 45

#### Shock Wave Reactions

P. A. ROBINSON 53

#### Fast Recording Techniques for Time Resolved Mass Spectrometry

R. T. MEYER 61

#### Detection of the NH<sub>2</sub> Free Radical and Other Ammoniacal Complexes in the Electrical Discharge Decomposition of Ammonia Gas

K. O. DYSON 89

#### Negative Ions

J. C. J. THYNNE, K. A. G. MACNEIL and K. J. CALDWELL 117

#### The Reactions of Ions with Molecules in the Gas Phase and the Sputtering of Solid Surfaces by Ion Bombardment

D. W. THOMAS 171

#### High Temperature Studies of Inorganic Solids

R. BOWLES 211

Some Applications of Time-of-flight Mass Spectrometry to Industrial Analysis	
C. D'OYLY-WATKINS, D. E. HILLMAN and D. E. WINSOR	227
Bibliography	
W. K. Joy	247
AUTHOR INDEX	261
SUBJECT INDEX	269

