

CONTENTS

Foreword	ix
Preface	xi
Bifurcation, pattern formation and chaos in combustion.....	1
<i>Alvin Bayliss and Bernard J. Matkowsky</i>	
Mathematical investigation of the cold boundary difficulty in flame propagation theory.....	37
<i>H. Berestycki, B. Larrouturou and J.M. Roquejoffre</i>	
Nonlinear development of low frequency one-dimensional instabilities for reacting shock waves.....	63
<i>A. Bourlioux, A. Majda and V. Roytburd</i>	
Dynamics of laminar triple-flamelet structures in non-premixed turbulent combustion.....	83
<i>J.W. Dold, L.J. Hartley and D. Green</i>	
Free boundary problems and dynamical geometry associated with flames.....	107
<i>Michael L. Frankel</i>	
On the dynamics of weakly curved detonations	127
<i>Rupert Klein</i>	
Simplified equations for low mach number combustion with strong heat release	167
<i>Andrew Majda and Kevin G. Lamb</i>	
Attractors and turbulence for some combustion models	213
<i>Martine Marion</i>	
Linear stability of one-dimensional detonations	229
<i>G.S. Namah, C. Brauner, J. Buckmaster and C. Schmidt-Laine</i>	
Discrete modeling of beds of propellant exposed to strong stimulus.....	241
<i>D. Scott Stewart and Blaine W. Asay</i>	