

# CONTENTS

[One plate]

	PAGE
<b>PREFACE</b>	[v]
<b>D. J. BRADLEY, F.R.S.</b> Introductory remarks	[1]
<b>M. C. ADAMS, D. J. BRADLEY, F.R.S., W. SIBBETT AND J. R. TAYLOR</b> Synchronously pumped continuous wave dye lasers	[7]
<b>E. P. IPPEN, C. V. SHANK, J. M. WIESENFELD AND A. MIGUS</b> Subpicosecond pulse techniques	[15]
<b>Discussion: SIR GEORGE PORTER, F.R.S., W. SIBBETT, A. D. BUCKINGHAM, F.R.S.</b>	[22]
<b>S. SCHNEIDER</b> Flashlamp-pumped mode-locked dye lasers	2 3
<b>G. H. C. NEW</b> Mode-locked laser systems : theoretical models	3 7
<b>H. A. HAUS</b> Mode-locked semiconductor diode lasers	4 7
<b>Discussion: T. S. Moss</b>	5 6
<b>W. KAISER, A. FENDT, W. KRANITZKY AND A. LAUBEREAU</b> Infrared picosecond pulses and applications	[57]
<b>J. REINTJES</b> Extreme ultraviolet picosecond pulses	[63]
<b>D. J. BRADLEY, F.R.S., K. W. JONES AND W. SIBBETT</b> Picosecond and femtosecond streak cameras: present and future designs	7 1
<b>A. E. HUSTON AND K. HELBROUGH</b> The Synchroscan picosecond streak camera system	[77]
<b>Y. SUZUKI, Y. TSUCHIYA, K. KINOSHITA, M. SUGIYAMA AND E. INUZUKA</b> Recent developments in picosecond streak camera systems	[85]
<b>C. V. SHANK, E. P. IPPEN, R. L. FORK, A. MIGUS AND T. KOBAYASHI</b> Application of subpicosecond optical techniques to molecular dynamics	[93]
<b>Discussion: SIR GEORGE PORTER, F.R.S.</b>	9 8
<b>GERALDINE A. KENNEY-WALLACE</b> Picosecond relaxation processes in liquids	9 9

	PAGE
G. S. <b>BEDDARD</b> , G. R. <b>FLEMING</b> , <b>SIR GEORGE PORTER</b> , F.R.S., AND R. J. <b>ROBBINS</b> Time-resolved fluorescence from biological systems : tryptophan and simple peptides	111
M. W. <b>WINDSOR</b> AND D. <b>HOLTEN</b> Picosecond studies of primary charge separation in bacterial photosynthesis	[125
M. H. <b>KEY</b> Some topical issues in research on short-pulse laser-produced plasmas	114
<b>Discussion: C. YAMANAKA</b>	[154
A. J. <b>ALCOCK</b> AND P. B. <b>CORKUM</b> Ultra-short pulse generation with CO <sub>2</sub> lasers	[155
C. <b>FENSTERMACHER</b> High-energy short-pulse carbon dioxide lasers	[167]
<b>Discussion: C. YAMANAKA</b>	[181]
C. <b>YAMANAKA</b> High-power neodymium glass laser systems for fusion research	[183
R. <b>SIGEL</b> Optical diagnostics of laser-produced plasmas with ultra-short laser pulses	[197]