

CONTENTS

<i>List of Contributors</i>	
<i>Preface</i>	ix
How Much Energy Do We Really Need <i>Charles M. Mottley</i>	
Uncounted Energy: The Present Contribution of Renewable Resources <i>David A. Tillman</i>	23
Anticipated Competition for Available Wood Fuels in the United States <i>John B. Grantham</i>	55
Thermal Analysis of Forest Fuels <i>Fred Shafizadeh and William F. DeGroot</i>	93
Conversion of Stagnated Timber Stands to Productive Sites and Use of Noncommercial Material for Fuel <i>John I. Zerbe</i>	5
Industrial Wood Energy Conversion <i>George D. Voss</i>	125
The Pyrolysis-Gasification-Combustion Process: Energy Effectiveness Using Oxygen vs. Air with Wood-Fueled Systems <i>David L. Brink, George W. Faltico, and Jerome F. Thomas</i>	
Wood Oil from Pyrolysis of Pine Bark-Sawdust Mixture <i>J. A. Knight, D. R. Hurst, and L. W. Elston</i>	169
Prospects for Co-Generation of Steam and Power in the Forest Products Industry <i>L. N. Johanson and K. V. Sarkanen</i>	197
Feasibility of Utilizing Crop, Forestry, and Manure Residues to Produce Energy <i>J. A. Alich, Jr., F. A. Schooley, R. K. Ernest, K. A. Miller, B. M. Louks, T. C. Veblen, J. G. Witwer, and R. H. Hamilton</i>	

vi Contents

Logistics of Energy Resources and Residues <i>Thomas R. Miles</i>	225
/Bagasse as a Renewable Energy Source <i>William Arlington</i>	249
/Use of Ginning Waste as an Energy Source <i>William F. Lalor</i>	
The Design of a Large-Scale Manure/Methane Facility <i>Frederick T. Varani, John Burford, and Richard P. Arber</i>	
/Energy Recovery from Municipal Wastes <i>James R. Greco</i>	289
/Energy from Waste Materials—1977 Overview <i>M. D. Schlesinger</i>	313
Discussion of Critical Issues <i>The Editors</i>	333
<i>Index</i>	340