
Contents

Preface	vii
Authors	xiii
Contributors	xv
Chapter 1	
Global Energy Overview	1
<i>Sunggyu Lee</i>	
Chapter 2	
Gasification of Coal.....	25
<i>Sunggyu Lee</i>	
Chapter 3	
Clean Liquid Fuels from Coal	81
<i>Sunggyu Lee</i>	
Chapter 4	
Coal Slurry Fuel	125
<i>Sunggyu Lee</i>	
Chapter 5	
Liquid Fuels from Natural Gas	153
<i>James G. Speight</i>	
Chapter 6	
Resids.....	171
<i>James G. Speight</i>	
Chapter 7	
Liquid Fuels from Oil Sand	197
<i>James G. Speight</i>	
Chapter 8	
Shale Oil from Oil Shale.....	223
<i>Sunggyu Lee</i>	

Chapter 9	
Methanol Synthesis from Syngas.....	297
<i>Sunggyu Lee</i>	
Chapter 10	
Ethanol from Corn.....	323
<i>Sunggyu Lee</i>	
Chapter 11	
Ethanol from Lignocellulosics	343
<i>Sunggyu Lee</i>	
Chapter 12	
Energy from Biomass Conversion	377
<i>Sunggyu Lee</i>	
Chapter 13	
Energy Generation from Waste Sources	395
<i>Sunggyu Lee</i>	
Chapter 14	
Geothermal Energy	421
<i>Sunggyu Lee and H. Bryan Lanterman</i>	
Chapter 15	
Nuclear Energy	443
<i>Sudarshan K. Loyalka</i>	
Chapter 16	
Fuel Cells.....	493
<i>Mihaela F. Ion and Sudarshan K. Loyalka</i>	
Index	525