

CONTENTS

1. Clean Energy from Waste: Introduction	1
2. Efficient and Economical Energy Recovery from Waste by Cofiring with Coal	14
3. Recovery of Ethanol from Municipal Solid Waste	28
4. Converting Waste to Ethanol and Electricity via Dilute Sulfuric Acid Hydrolysis A Review	42
5. Fuel Evaluation for a Fluidized-Bed Gasification Process	58
6. Treatment of Municipal Solid Waste by the Hydrocarbon Process	72
7. Biomes-Fueled Gas Turbines	78
8. Transition Metals as Catalysts for Pyrolysis and Gasification	90
9. Cofiring Tire-Derived Fuel and Coal for Energy Recovery	104
10. Converting Waste Polymers to Energy Products	117
11. Gasification-Pyrolysis of Waste Plastics for the Production of Fuel-Grade Gas	129
12. Estimating the Heating Value of Sewage Sludge: A New Correlation	144
13. Preparing Pumpable Mixtures of Sewage Sludge and Coal for Gasification	157
14. Metal Emissions Control Technologies for Waste Incineration	174
15. Metal Behavior during Medical Waste Incineration	189
16. Trace Metal Analysis of Fly Ash from Combustion of Densified Refuse-Derived-Fuel and Coal	199
17. Aluminosilicates as Potential Sorbents for Controlling Metal Emissions	214
18. Analysis of Organic Emissions from Combustion of Quicklime Binder-Enhanced Densified-Refuse-Derived Fuel-Coal Mixtures	223
19. Ash Utilization and Disposal	242
20. Utilization of Coal Gasification Slag: Overview	253
21. High-Strength Portland Cement Concrete Containing Municipal Solid Waste-Incinerator Ash	264
22. Assessing the Feasibility of Developing and Transferring New Energy Technology to the-Marketplace: A Methodology	278
Author Index	291
Affiliation Index	291
Subject Index	291