

Foreword to the World Scientific Series on Current Energy Issues	p. v
Acknowledgement	p. ix
General Introduction to Critical Materials	p. 1
Geopolitics and the Energy - Materials Nexus	p. 11
The Geopolitics of Materials: How Population Growth, Economic Development and Changing Consumption Patterns Fuel Geopolitics	p. 13
The Changing Geopolitics of Energy	p. 33
Materials for Electrochemical Energy Storage Devices	p. 53
Defining Critical Materials	p. 83
A Historical Perspective of Critical Materials, 1939 to 2006	p. 85
Defining the Criticality of Materials	p. 103
Identifying Supply Chain Risks for Critical and Strategic Materials	p. 117
In Search of an Appropriate Criticality Assessment of Raw Materials in the Dutch Economy	p. 151
Critical Material Mitigation Strategies	p. 177
Circular Product Design: Addressing Critical Materials through Design	p. 179
Substitution Case Study: Replacing Niobium by Vanadium in Nano-Steels	p. 193
Strategies towards Carbon Nanomaterials-Based Transparent Electrodes	p. 223
Sustainability in Mining	p. 251
Recycling as a Critical Material Mitigation Strategy	p. 265
How to Get Stuff Back?	p. 267
Challenges in Advanced Solid Waste Separation	p. 289
Primary Production and Recycling of Critical Metals	p. 315
Recovery of Rare Earths from Bauxite Residue (Red Mud)	p. 343
Author Biographies	p. 357
Index	p. 375

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.