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Chapter 12: Thermally stable fluoro-organic solvents for lithium ion batteryChapter 13. Physical and electrochemical properties and application to lithium batteries of fluorinated organic solvents; Chapter 14. PVdF-based polymers for lithium batteries; Chapter 15. Lithium-ion-conductive polymer electrolytes exhibit a high lithium-ion transference number with the incorporation of fluorine atoms; Chapter 16. Room-temperature molten salts as new electrolytes; Chapter 17. Fluorine-intercalated graphite for lithium batteries; Chapter 18. Battery application of graphite intercalation compoundsChapter 19. Fluoride-based electrolytes and their applications for intermediate temperature ceramic fuel cellsChapter 20. The use of Nafion® as electrolyte in fuel cells; Chapter 21. Functional fluoropolymers for fuel cell membranes; Chapter 22. Films and powders of fluorine-doped tin dioxide; Chapter 23. Doped transparent conducting oxides suitable for the fabrication of high efficiency thin film solar cells; Chapter 24. Fluoride technologies application within the Molten-Salt Reactors fuel cycle; Subject Index

Sommario/riassunto

Fluorinated materials for energy conversion offers advanced information on the application of fluorine chemistry to energy conversion materials for lithium batteries, fuel cells, solar cells and so on. Fluorine compounds and fluorination techniques have recently gained important roles in improving the electrochemical characteristics of such energy production devices. The book therefore focuses on new batteries with high performance, the improvements of cell performance and the improvement of electrode and cell characteristics. The authors present new information on the effect of fluori
