

1. Record Nr.	UNINA9910136414003321
Titolo	Fuel cells : data, facts and figures // edited by Detlef Stolten, Remzi C. Samsun and Nancy Garland
Pubbl/distr/stampa	Weinheim, Germany : , : Wiley, , 2016 ©2016
ISBN	3-527-69392-0 3-527-69391-2 3-527-69389-0
Descrizione fisica	1 online resource (517 p.)
Disciplina	621.312429
Soggetti	Fuel cells Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Related Titles; Title Page; Copyright; Preface; Part I: Transportation; I-1 Propulsion; I-1.1 Benchmarks and Definition of Criteria; 1: Battery Electric Vehicles; References; 2: Passenger Car Drive Cycles; Abstract; 2.1 Introduction; 2.2 Drive Cycles for Passenger Car Type Approval; 2.3 Drive Cycles from Research Projects; 2.4 Drive Cycle Characteristics; 2.5 Graphic Representation of Selected Drive Cycles; 2.6 Conclusion; References; 3: Hydrogen Fuel Quality; Abstract; 3.1 Introduction; 3.2 Hydrogen Fuel; 3.3 Fuel Quality Effects; 3.4 Fuel Quality for Fuel Cell Vehicles 3.5 Single Cell Tests 3.6 Field Data; 3.7 Fuel Quality Verification; 3.8 Conclusion; References; 4: Fuel Consumption; Abstract; 4.1 Introduction; 4.2 Hydrogen Production; 4.3 Hydrogen Packaging; 4.4 Hydrogen Consumption in FCEVs; 4.5 Conclusion; References; I-1.2 Demonstration; I-1.2.1 Passenger Cars; 5: Global Development Status of Fuel Cell Vehicles; Abstract; 5.1 Introduction; 5.2 Update on Recent Activities of Car Manufacturers; 5.3 Key Data and Results from Demonstration Programs; 5.4 Technical Data of Fuel Cell Vehicles; 5.5 Conclusions; References

6: Transportation - China - Passenger Cars Abstract; 6.1 Introduction; 6.2 National R&D Strategy (2011-2015); 6.3 Government Policy; 6.4 Published Technical Standards; 6.5 Demonstrations; 6.6 Commercialization - Case of SAIC Motor; 6.7 Conclusions; References; 7: Results of Country Specific Program - Korea; Abstract; 7.1 Introduction; 7.2 FCV Demonstration Program; 7.3 Summary; 8: GM HydroGen4 - A Fuel Cell Electric Vehicle based on the Chevrolet Equinox; Abstract; 8.1 Introduction; 8.2 Technology; 8.3 Conclusions; Acknowledgments; References; I-1.2.2 Buses
9: Results of Country Specific Programs - USA Abstract; 9.1 Introduction; 9.2 FCEB Descriptions; 9.3 SunLine Advanced Technology Fuel Cell Electric Bus; 9.4 Zero Emission Bay Area Program; 9.5 SunLine American Fuel Cell Bus; 9.6 Conclusion; References; I-1.3 PEM fuel cells; 10: Polymer Electrolytes; Abstract; 10.1 Introduction; 10.2 Membrane Properties; 10.3 Conclusions; References; 11: MEAs for PEM Fuel Cells; Abstract; 11.1 Introduction; 11.2 MEA Basic Components (PEMs, Catalysts, GDLs and Gaskets); 11.3 MEA Performance, Durability, and Cost Targets for Transportation
11.4 MEA Robustness and Sensitivity to External Factors
11.5 Technology Gaps; 11.6 Conclusion; References; 12: Gas Diffusion Layer; Abstract; 12.1 Introduction; 12.2 Macroporous Substrate; 12.3 Microporous Layer; 12.4 Characterization of GDL; 12.5 Conclusion; References; 13: Materials for PEMFC Bipolar Plates; Abstract; 13.1 Introduction; 13.2 Composite BP Materials; 13.3 Metallic BP Materials; Acknowledgments; References; 14: Single Cell for Proton Exchange Membrane Fuel Cells (PEMFCs); Abstract; 14.1 Introduction; 14.2 Main Components of a Single Cell for a PEMFC
14.3 Assembly of a Single Cell
