1. Record Nr. UNINA9910791776003321

Titolo	Review of the research program of the FreedomCAR and Fuel Partnership . Third report [[electronic resource] /] / Committee on Review of the FreedomCAR and Fuel Research Program, Phase 3, Board on Energy and Environmental Systems, Division on Engineering and Physical Sciences, National Research Council of the National Academies
Pubbl/distr/stampa	Washington, DC, : National Academies Press, c2010
ISBN	0-309-17714-6 1-282-91706-4 9786612917066 0-309-15684-X
Descrizione fisica	1 online resource (229 p.)
Disciplina	629.22
Soggetti	Motor vehicles - Technological innovations - Research - United States Automobiles - Energy consumption - Research - United States Research and development partnership - United States
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.
Nota di contenuto	""Front Matter""; ""Preface""; ""Acknowledgments""; ""Contents""; ""Tables, Figures, and Boxes""; ""Dedication""; ""Summary""; ""1 Introduction""; ""2 Crosscutting Issues""; ""3 Vehicle Subsystems""; ""4 Hydrogen and Biofuels""; ""5 Overall Assessment""; ""Appendixes""; ""Appendix A: Biographical Sketches of Committee Members""; ""Appendix B: Committee's Interim Letter Report""; ""Appendix C: Organizational Chart""; ""Appendix D: Recommendations from National Research Council Review of the Freedom CAR and Fuel Research Program, Phase 2""; ""Appendix E: Committee Meetings and Presentations"" ""Appendix F: Acronyms and Abbreviations""
Sommario/riassunto	"The public-private partnership to develop vehicles that require less petroleum-based fuel and emit fewer greenhouse gases should continue to include fuel cells and other hydrogen technologies in its research and development portfolio. The third volume in the

FreedomCAR series states that, although the partnership's recent shift of focus toward technologies that could be ready for use in the nearer term--such as advanced combustion engines and plug-in electric vehicles--is warranted, R & D on hydrogen and fuel cells is also needed given the high costs and challenges that many of the technologies must overcome before widespread use. The FreedomCAR (Cooperative Automotive Research) and Fuel Partnership is a research collaboration among the U.S. Department of Energy, the United States Council for Automotive Research - whose members are the Detroit automakers--five major energy companies, and two electric utility companies. The partnership seeks to advance the technologies essential for components and infrastructure for a full range of affordable, clean, energy efficient cars and light trucks. Until recently, the program primarily focused on developing technologies that would allow U.S. automakers to make production and marketing decisions by 2015 on hydrogen fuel cell-powered vehicles. These vehicles have the potential to be much more energy-efficient than conventional gasoline-powered vehicles, produce no harmful tailpipe emissions, and significantly reduce petroleum use. In 2009, the partnership changed direction and stepped up efforts to advance, in the shorter term, technologies for reducing petroleum use in combustion engines, including those using biofuels, as well as batteries that could be used in plug-in hybrid-electric or all electric vehicles."--Publisher's description.

2. Record Nr. UNINA9910830584603321

Titolo	Aspects of chemical evolution [[electronic resource]] : XVIIth Solvay Conference on Chemistry, Washington, D.C., April 23-April 24, 1980 / / edited by G. Nicolis
Pubbl/distr/stampa	New York, : Wiley, c1984
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Descrizione fisica	1 online resource (306 p.)
Collana	Advances in chemical physics ; ; v. 55
Altri autori (Persone)	NicolisG. <1939->
Disciplina	541.305 541/.08 575
Soggetti	Chemistry Molecular evolution
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	"An Interscience publication."
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Nota di contenuto	ASPECTS OF CHEMICAL EVOLUTION; CONTENTS; JACQUES SOLVAY: The Solvay Conferences and the International Cooperation in Science; EDOARDO AMALDI: The Solvay Conferences in Physics; A. R. UBBELOHDE: The Solvay Conferences in Chemistry, 1922-1978; I. PRIGOGINE: Nonequilibrium Thermodynamics and Chemical Evolution: An Overview; MARCEL NICOLET: Atmospheric Chemistry; R. ZANDER: Commentary: Observational Aspects Related to the Chemical Evolution of Our Atmosphere; STANLEY L. MILLER: The Prebiotic Synthesis of Organic Molecules and Polymers; PETER SCHUSTER: Commentary: On The Origin of Optical Activity RICHARD M. NOYES: Commentary: On Selection of ChiralityC. SYBESMA: Commentary: A Prebiotic Origin of Photosynthesis?; MANFRED EIGEN: The Origin and Evolution of Life at the Molecular Level; ROBERT M. BOCK: Commentary: On Paper by Manfred Eigen; J. W. SYUCKI: Optimization of Mitochondria1 Energy Conversions; JOHN Ross AND PETER H. RICHTER: Commentary: Dissipation Regulation in Oscillatory

Reactions. Application to Glycolysis; E. SCHOFFENIELS: Commentary: A Complex Biological Oscillator
G. NICOLIS: Bifurcations and Symmetry Breaking in Far-from-Equilibrium Systems: Toward a Dynamics of ComplexityH. L. FIUSCH: Commentary: Stochastic Models of Synthesis of Asymmetric Forms; JACK S. TURNER: Complex Periodic and Nonperiodic Behavior in the Belousov-Zhabotinski Reaction; STUART A. KAUFFMAN: Bifurcations in Insect Morphogenesis; R. THOMAS: Logical Description, Analysis, and Synthesis of Biological and Other Networks Comprising Feedback Loops; Index

Sommario/riassunto

The Advances in Chemical Physics series provides the chemical physics and physical chemistry fields with a forum for critical, authoritative evaluations of advances in every area of the discipline. Filled with cutting-edge research reported in a cohesive manner not found elsewhere in the literature, each volume of the Advances in Chemical Physics series serves as the perfect supplement to any advanced graduate class devoted to the study of chemical physics.