1. Record Nr. UNINA9910778625703321

Titolo	Modeling mobile-source emissions [[electronic resource] /] / Committee to Review EPA's Mobile Source Emissions Factor (Mobile) Model, Board on Environmental Studies and Toxicology, Commission on Geosciences, Environment, and Resources, Transportation Research Board, National Research Council
Pubbl/distr/stampa	Washington, D.C., : National Academy Press, c2000
ISBN	0-309-17190-3 1-280-18543-0 9786610185436 0-309-56961-3 0-585-34671-2
Descrizione fisica	1 online resource (257 p.)
Collana	The compass series
Disciplina	363.738/7
Soggetti	Motor vehicles - Motors - Exhaust gas - Environmental aspects - United States - Mathematical models - Evaluation Air quality management - United States - Mathematical models - Evaluation
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 (p. 210-225).
Nota di contenuto	""MODELING MOBILE-SOURCE EMISSIONS""; ""Copyright""; ""Preface""; ""Contents""; ""Executive Summary""; ""MOBILE-SOURCE EMISSIONS MODELING RECOMMENDATIONS""; ""Development of a Toolkit of Models""; ""Finding""; ""Recommendation""; ""Model Evaluation""; ""Finding""; ""Recommendation""; ""Sensitivity and Uncertainty Assessment""; ""Finding""; ""Recommendation""; ""Long-Term Planning""; ""Finding""; ""Recommendation""; ""Improving Characterization of Real-World Vehicle Emissions""; ""Finding""; ""Recommendation""; ""RECOMMENDATIONS FOR IMPROVEMENTS TO MOBILE"" ""Emissions from Heavy-Duty Diesel Vehicles""""""Finding""; ""Recommendation""; ""Particulate Emissions""; ""Finding""; ""Recommendation""; ""High-Emitting Vehicles""; ""Finding""; ""Recommendation""; ""Frequency of Model Updates""; ""Finding"";

""Recommendation""; ""Mobile-Source Toxic Emissions""; ""Finding""; ""Recommendation""; ""OTHER RECOMMENDATIONS""; ""Off-Road Emissions""; ""Finding""; ""Recommendation""; ""TAKING THE NEXT STEPS""; ""1 Overview of Mobile-Source Emissions ""; ""AIR-QUALITY PROTECTION""; ""Pollutants of Interest""; ""Mobile-Source Contributions""
""Human Health Concerns""""""Environmental Concerns""; ""ESTIMATING EMISSIONS FROM MOBILE SOURCES""; ""Importance of Source Identification and Quantification""; ""On-Road Vehicle Emissions Categories""; ""Light-Duty Vehicles""; ""Heavy-Duty Vehicles""; ""Evaporative Emissions""; ""Off-Road Emissions Categories""; ""Mobile-Source Emissions Using MOBILE and Related Models""; ""LEGISLATIVE AND REGULATORY INITIATIVES""; ""Legislative Requirements and Compliance Attainment Plans""; ""Legislative Requirementsa€? Conformity Plans""; ""Regulatory Initiatives""
""COMMITTEE'S CHARGE AND HOW IT ORIGINATED""""""REPORT STRUCTURE""; ""2 Current and Possible Future Uses of MOBILE in Air-Quality Management ""; ""FUTURE MOBILE-SOURCE EMISSIONS-MODELING ISSUES""; ""MODELING AIR QUALITY: AN INTERDISCIPLINARY ENDEAVOR""; ""Travel-Demand Modeling""; ""Multidimensional Synergistic Impacts from Adjustments to Travel Activity Results""; ""Emissions Modeling""; ""Vehicle Registration""; ""Vehicle Miles of VMT Travel Mix""; ""Average Speed""; ""Temperature""; ""Air-Quality Modeling""; ""Users of Modeling Components""; ""Level of Analysis and Model Uses and Users""
""Fidelity, Accuracy, and Precision of Each Component""""""USES OF MOBILE IN POLICY DECISION-MAKING""; ""National and Regional Regulatory Strategies""; ""Primary Users and Purpose""; ""Issues and Limitations""; ""Policy Implications and Future Direction""; ""Evaluation of Control Strategies, Emissions Inventory, and Rate of Progress""; ""Primary Users and Purpose""; ""Issues and Limitations""; ""Policy Implications and Future Directions""; ""SIP Demonstration of Attainment""; ""Primary Users and Purpose""; ""Issues and Limitations""; ""Policy Implications and Future Directions""
""Transportation Conformity and Evaluation of Transportation Impacts in a Nonattainment Area""

2. Record Nr. UNINA9910811598703321

Autore	Dahoo Pierre Richard
Titolo	Infrared spectroscopy of diatomics for space observation / / Pierre-Richard Dahoo and Azzedine Lakhlifi
Pubbl/distr/stampa	London, England ; ; Hoboken, New Jersey : , : ISTE Ltd : , : John Wiley & Sons, Inc., , 2017 ©2017
ISBN	1-119-47661-5 1-119-45331-3 1-119-47648-8
Descrizione fisica	1 online resource (218 pages)
Collana	Infrared Spectroscopy Set ; ; Volume 1
Disciplina	543.08583077
Soggetti	Infrared spectroscopy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Generalities on diatomic molecules -- Energy levels of a diatomic molecule in gaseous phase -- Profile and shape of spectral lines -- Energy levels and spectral profile of a diatomic molecule in condensed phase -- Applications to HCI, CO, O and N.
Sommario/riassunto	"This book describes different theoretical models developed to identify the near and mid infrared (IR) spectra of diatomic molecules isolated in the gas phase or subjected to environmental constraints, useful for the study of environmental sciences, planetology and astrophysics. The Van Vleck contact transformation method is presented to complement the standard approach generally applied in the calculation and analysis of IR transitions between vibration-rotation energy levels. The semi-classical model of Robert and Bonamy, as well as the extended substitution model of Lakhlifi-Dahoo applied to environmental spectroscopy, are described in the framework of the Liouville formalism and the profiles of diatomic lines and their isotopologues subjected to environmental constraints are calculated by applying the cumulant expansion. The applications presented in this book show how molecular interactions modify the near and mid IR spectra of isolated diatomics under the effect of pressure, a nano-cage (substitution site, Clathrate, Fullerene, Zeolite) or surfaces, to identify the characteristics

of the perturbing environment"--Back cover