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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. [399]-400) and index.
Nota di contenuto	Particulate Emissions from Vehicles; Contents; Preface; Acronyms and Abbreviations; About the Author; 1 Introduction; 1.1 Air Traffic; 1.2 Motor Vehicles; 1.3 The Legislative Framework; 2 Fundamentals; 2.1 Introduction; 2.2 Properties of Aerosol Particles; 2.2.1 Diameter and Shape; 2.2.2 Size Distribution; 2.2.3 Transport and Deposition; 2.2.4 Transformation and Mutation; 2.3 Particles in the Atmosphere; 2.3.1 Character and Behaviour; 2.3.2 Aerosols in Nature; 2.3.3 Anthropogenic Aerosols; 2.3.4 Environmental Implications; 2.4 Motor Vehicle Particulate; 2.4.1 Some Typical Particles Dissected 2.4.2 What Happens Within the Engine2.4.3 What Happens Within the Exhaust; 2.4.4 Number Versus Mass; 2.5 Closure; 2.5.1 Properties of Aerosol Particles; 2.5.2 Particles in the Atmosphere; 2.5.3 Motor Vehicle Particulate; 3 Formation I: Composition; 3.1 Introduction; 3.2 Carbonaceous Fraction: I. Classical Models; 3.2.1 Empiricisms; 3.2.2 Inception; 3.2.3 Surface Growth; 3.2.4 Agglomeration; 3.2.5 Oxidation; 3.3 Carbonaceous Fraction: II. The Combusting Plume; 3.3.1 Historical Overview; 3.3.2 Premixed Burn; 3.3.3 Mixing-controlled Burn; 3.3.4

Late Burn

3.4 Carbonaceous Fraction: III. Wall Interactions3.4.1 Theoretical; 3.4.2 Experimental; 3.5 Ash Fraction; 3.5.1 Chemical Reactions; 3.5.2 Gas-to-Particle Conversion; 3.6 Organic Fraction; 3.6.1 Preparatory Chemical Reactions; 3.6.2 Chemical Reactions in the Exhaust; 3.6.3 Gas-to-Particle Conversion: Models; 3.6.4 Gas-to-Particle Conversion: Measurements; 3.6.5 White Smoke; 3.7 Sulphate Fraction; 3.7.1 Chemical Reactions; 3.7.2 Gas-to-Particle Conversion; 3.8 Closure; 3.8.1 Carbonaceous Fraction I. Classical Models; 3.8.2 Carbonaceous Fraction II. The Combusting Plume 3.8.3 Carbonaceous Fraction III. Wall Interactions3.8.4 Ash Fraction; 3.8.5 Organic Fraction; 3.8.6 Sulphate Fraction; 4 Formation II: Location; 4.1 Introduction; 4.2 Within the Exhaust System; 4.2.1 Storage and Release; 4.2.2 Deposition Within Catalysts; 4.3 Within the Exhaust Plume; 4.3.1 Long-term Ageing in the Atmosphere; 4.4 Within the Transfer Line; 4.5 Within the Dilution Tunnel; 4.6 On the Filter; 4.7 Closure; 4.7.1 Within the Exhaust System; 4.7.2 Within the Exhaust Plume; 4.7.3 Within the Transfer Line; 4.7.4 Within the Dilution Tunnel; 4.7.5 On the Filter; 4.7.6 General Remarks
5 Measurement5.1 Introduction; 5.2 Particulate Measured Conventionally; 5.2.1 Drawing a Sample of Exhaust Gas; 5.2.2 Diluting the Exhaust; 5.2.3 Collection onto a Filter; 5.2.4 Fractionation by Gasification; 5.2.5 Fractionation by Dissolution; 5.2.6 Chemically Assaying the Organic Fraction; 5.2.7 Biologically Assaying the Organic Fraction; 5.3 Particulate Measured Individually; 5.3.1 Inertial Mobility; 5.3.2 Electrical Mobility; 5.3.3 Laser-induced Incandescence; 5.3.4 Light Scattering; 5.4 Particulate Measured Collectively; 5.4.1 Photoacousticity; 5.4.2 Photoelectric and Diffusion Charging 5.4.3 Electrical Charge

Sommario/riassunto

The public health risks posed by automotive particulate emissions are well known. Such particles are sufficiently small to reach the deepest regions of the lungs; and moreover act as carriers for many potentially toxic substances. Historically, diesel engines have been singled out in this regard, but recent research shows the need to consider particulate emissions from gasoline engines as well. Already implicated in more than one respiratory disease, the strongest evidence in recent times points to particle-mediated cardiovascular disorders (strokes and heart attacks). Accordingly, legislation

2. Record Nr.	UNINA9910697823803321
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Pubbl/distr/stampa	[Washington, D.C.] : , : U.S. Govt. Accountability Office, , [2008]
Descrizione fisica	iii, 59 pages : digital, PDF file
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from title screen (viewed on Sept. 17, 2008). "August 2008." "GAO-08-1048."
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Sommario/riassunto	GAO was asked to examine (1) the scope of the U.S. voluntary carbon offset market, including the role of the federal government; (2) the extent to which mechanisms for ensuring the credibility of offsets are available and used and what, if any, related information is shared with consumers; and (3) trade-offs associated with increased oversight of the U.S. market and including offsets in climate change mitigation policies.