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Shaping: Influence on Mixture Formation and Combustion Process; 10: Development of Predictive Vehicle and Drivetrain Operating Strategies Based Upon Advanced Information and Communication Technologies; Introduction to Part 3; 11: Measures to Promote the Diffusion of Alternative Fuel Vehicles in EU27
12: Creating Prospective Value Chains for Renewable Road Transport Energy Sources up to 2050 in Nordic Countries13: The Consequences of Increasing Fuel Prices on Car Travel and Household Budgets; 14: The Development of an Innovative On-board CNG Storage System for Methane-Fuelled Cars Conducted Within the FP7 EU Project 'InGAS'; 15: Sustainability Assessment of Infrastructure Elements with Integrated Energy Harvesting Technologies; Introduction to Part 4; 16: GHG Mitigation Strategy in the European Transport Sector
17: Why do CO₂ Emissions from Heavy Road Freight Transport Increase in Spite of Higher Fuel Prices?18: A Study on Super Credits and their Impact on Fleet-Average Real-World CO₂ Emissions; 19: A Study on Co-modality and Eco-driving Mobility; 20: Harmonizing Carbon Footprint Calculation for Freight Transport Chains; 21: Carbon Intensity of French Shippers; Introduction to Part 5; 22: Impact of FAME Content on Regeneration Frequency of Diesel Particulate Filters (DPFs); 23: Exhaust Aftertreatment Potential of Advanced Coupled NSC-SCR System
24: Power Controlled Microwave Reactor for the Removal of NO_x and SO_x from the Exhaust of Marine Diesel Engines

Sommario/riassunto

Transport systems are facing an impossible dilemma: satisfy an increasing demand for mobility of people and goods, while decreasing their fossil-energy requirements and preserving the environment. Additionally, transport has an opportunity to evolve in a changing world, with new services, technologies but also new requirements (fast delivery, reliability, improved accessibility). In this book, recent research works are reported around the triptych: "transport, energy and environment", which demonstrates that vehicle technologies and fuels can still improve, but it is necessary to prepare their implementation (e. g. electro-mobility), to think of new services, and to involve all actors, particularly enterprises, who will be the drivers of innovation. Mitigation strategies are studied to promote innovative, multimodal and clean transports and services. Research progress is reported on air pollution, vibrations and noise, their mitigation and assessment methodologies.
