



## Vehicle Emissions: New Challenges and Potential Solutions

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### Message from the Guest Editor

Increasingly stringent emission standards have been introduced or are planned in several countries to reduce greenhouse gas (GHG) and pollutant emissions from vehicles, expected to be monitored and controlled under wider operating/driving conditions as well. The range of regulated pollutants is becoming wider, with non-exhaust emissions such as brake and tyre wear particles drawing more and more attention from regulatory bodies.

This still requires a significant research effort, both for vehicle technology and measurement instruments/techniques. Upcoming regulations will need new instruments with new principles of measurements, sensitive enough for low emission levels, particularly for on-board systems. Measuring increasingly low emission levels in extreme conditions is a challenge and calibration procedures are important. Advanced modeling and simulation tools are essential, not only for research and development (R&D), but also for regulatory purposes. This Special Issue collects the latest results of the most advanced research in the field of vehicle emissions.





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## Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

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