Special Issue

Brake and Tire Non-Exhaust Emissions and Air Pollution

Message from the Guest Editor

A growing body of scientific evidence shows that PM originating from non-exhaust brakes and tire emission sources significantly affects human health. At present, and likely to continue in the future, the contribution of non-exhaust emissions to the overall vehicle emission performance will continue to increase due to engine hybridization, cleaner combustion, and more efficient aftertreatment technologies. Exhaust vehicle emissions are becoming more stringent, while non-exhaust PM is generally unregulated. Despite the current and future significant contribution of non-exhaust emissions to air quality deterioration, few public policies target them explicitly. Currently, high uncertainty remains with respect to non-exhaust PM emitted under real-world driving conditions. Little is known about different factors, such as material composition, road type, driving conditions, etc., which can affect overall non-exhaust emissions. This Special Issue on brake and tire non-exhaust emissions and air pollution aims to provide a comprehensive understanding and valuable information about emission generation mechanisms that affect non-exhaust brake and tire emission performance.

Guest Editor

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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!

Editor-in-Chief

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