# Occurrence of Microplastics from Tire Wear Particles and Effects of Road Traffic Flow on Spatiotemporal Distribution

Principal Investigator:Hiroshi SAKAI, Masami YANAGIHARA
Institution: Tokyo Metropolitan University, 1-1, Minami Osawa, Hachioji City, 192-0397, JAPAN
Tel: 042-677-2789/Fax:042-677-2789
E-mail: h_sakai@tmu.ac.jp

[Abstract]

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Microplastic analysis and traffic flow analysis were conducted. In the analysis, the temporal and spatial distribution of tire dust was clarified by collecting samples under various road conditions. Specifically, by taking samples at different points before and after intersections and in different lanes on the same road, we were able to clarify traffic flow focusing on driving behaviors such as acceleration and deceleration, and by taking samples at curved sections and intersections, we were able to clarify the relationship with the road structure and design. As a result, it was found that in straight sections, number of microplastics is generally proportional to traffic volume and is affected by braking, that in curved sections, emissions per vehicle increase due to the radius of curvature, and that in intersections emissions are affected by both of these factors.

[References]

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