



Monitoring and determining exhaust gas emissions

Solution benefits

A method and a measuring system for determining exhaust gas emissions from a moving vehicle by a remote optical measuring technique. For monitoring and determining emission of exhaust gas such as carbon monoxide, hydrocarbon, nitrogen oxide from diesel vehicle during road traffic using remote measuring technique.

Competitive advantage

By forming the calculatory vehicle model, real fuel consumption emission gas coefficients and case specific estimate of carbondioxide concentration are determined thereby enabling accurate measurement of emission gases and classifying vehicles based on preset criteria for exhaust gas emission.

Technical description

The model and/or type of the vehicle under examination is identified, and the driving situation of the vehicle in question is determined at the moment of measurement. A calculatory vehicle model is used to determine a case-specific estimate for the carbon dioxide concentration of the exhaust gas plume depending on the vehicle in question and its driving situation. The accuracy of determining the concentrations of the actual emission gases is improved by eliminating the inaccuracy of the carbon dioxide concentration values.

Intellectual property

Känsäkoski M; Niemelä P: A method and a measuring system for determining and monitoring exhaust gas emissions from a vehicle

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- WO 2002082059 A1, FI 2001000729 A, EP 1386137 A1,
- US 20040104345 A1, FI 114572 B1, US 7049595 B2
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Why partner with VTT?

10 reasons for technology partnering with VTT

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8. Collaboration with TOP 50 R&D companies in Finland
9. Global R&D partnership with 50 Fortune 500 companies
10. Market driven multi-disciplinary solutions

Additional information

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