

Corrigendum

Title: Analyzing on-road emissions of light-duty vehicles with Portable Emission Measurement Systems (PEMS)

Authors: Weiss, M., Bonnel, P. Hummel, R., Manfredi, U., Colombo, R., Lanappe, G., Le Lijour, P., Sculati, M.

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Methodology, page 15:

We erroneously stated that the Semtech-DS PEMS from Sensors Inc. measures total hydrocarbons, CO, and CO₂ emissions by a non-dispersive infrared sensor (NDIR) and NO emissions by an electrochemical cell. **The corrected statement reads now:** Total hydrocarbon emissions are measured by a heat flame ionization detector (HFID); CO and CO₂ emissions are measured by a non-dispersive infrared (NDIR) analyzer; NO and NO₂ emissions are measured by a non-dispersive ultraviolet (NDUV) analyzer; the total NO_x emissions are then inferred from the NO and NO₂ data.

Results, page 23:

We erroneously applied the emission limits for Euro 3 and Euro 4 diesel vehicles of category M1 to evaluate the emissions of Vehicles A and C. These two vehicles belong, however, to vehicle category N1 (Class II), for which less stringent Euro 3 and Euro 4 emission limits are enforced than for vehicles of category M1. We correct the respective emission limits in Figures 11, 12, 15, and 16. Based on these changes, we correct one sentence in the executive summary and one sentence in the results section:

Executive summary, text line 17; original statement: The observed deviations range from a factor of 4-7 for average NO_x emissions over entire test routes up to a factor of 14 for NO_x emissions of individual averaging windows.

Executive summary, text line 17; corrected statement: The observed deviations range from a factor of 2-4 for average NO_x emissions over entire test routes up to a factor of 14 for average NO_x emissions of individual averaging windows.

Results, page 23; original statement: On-road NO_x emissions of gasoline vehicles generally stay within Euro 3-5 emission limits whereas NO_x emissions of diesel vehicles substantially exceed Euro 3-5 emission limits up to a factor of 4-7.

Results, page 23; corrected statement: On-road NO_x emissions of gasoline vehicles generally stay within Euro 3-5 emission limits whereas NO_x emissions of diesel vehicles substantially exceed Euro 3-5 emission limits up to a factor of 2-4 if averaged over entire test routes.

The corrections do neither change the results for diesel passenger cars (category M1; including the two tested Euro 5 passenger cars) nor do they change the overall conclusion of this report.