

Nanoparticle filtration

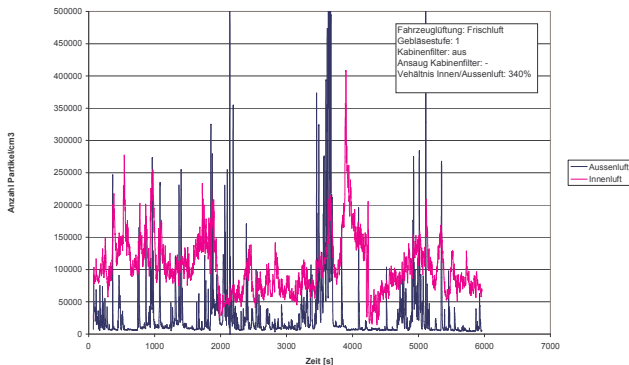
Clean air in vehicles and homes

Field Trials for School Buses

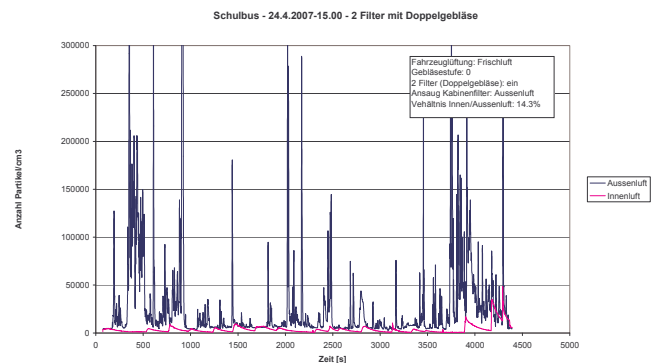
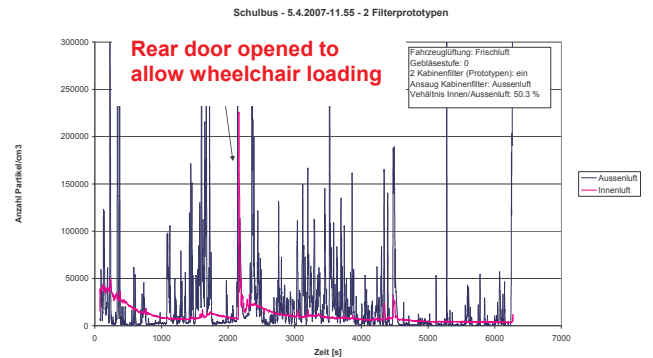
Matter AG and its partners have developed new nanoparticle filtration systems for passenger vehicles. Recently field tests have been carried out in a fully occupied 15-seater schoolbus for disabled children travelling around Wil, Switzerland. The coach was first fitted with two small systems each capable of 30m³/hour airflow (as below), fitted in the roof to replace the coach's air conditioning intake systems, taking air from the outside, filtering it, and delivering it to the passenger compartment whilst the normal air-conditioning system was in recirculation mode. It was then fitted with a single more powerful system capable of 120m³/hour airflow, fitted in the same way.



Schulbus - 24.4.2007-11.00 - ohne Filter



Nanoparticle levels without nanoparticle filters, and for the two situations described above, are shown (external = blue, internal = pink). With no nanofilters (above) the bus concentrates nanoparticles 3.4x to dangerously high levels.



With the 60m³ system levels are lowered 7x to ~50% of the external count: with the 120m³ system levels are lowered to <5000/cc ('clean ambient', equal to woodland) for the whole journey, except when doors were opened, though external levels exceeded 1,000,000/cc.

