

Detection of defect or not existing DPF

Introduction & Background:

The DPF is a high efficient technology to reduce necessary the particle emission of Diesel vehicles.
When a cleaning or changing of the filter is, manipulation is in the long-time a cheaper alternative, with this manipulations goes the DPF out of function.
Therefore its interesting to know which use the manipulation.

Methodology:

Testing the exhaust emissions of cars, busses and lorry's in the streets of Berlin with an mobile PN-counter.
Check the emission-datas with the vehicles-specifications.

Great lock "Mühlendamm Schleuse"

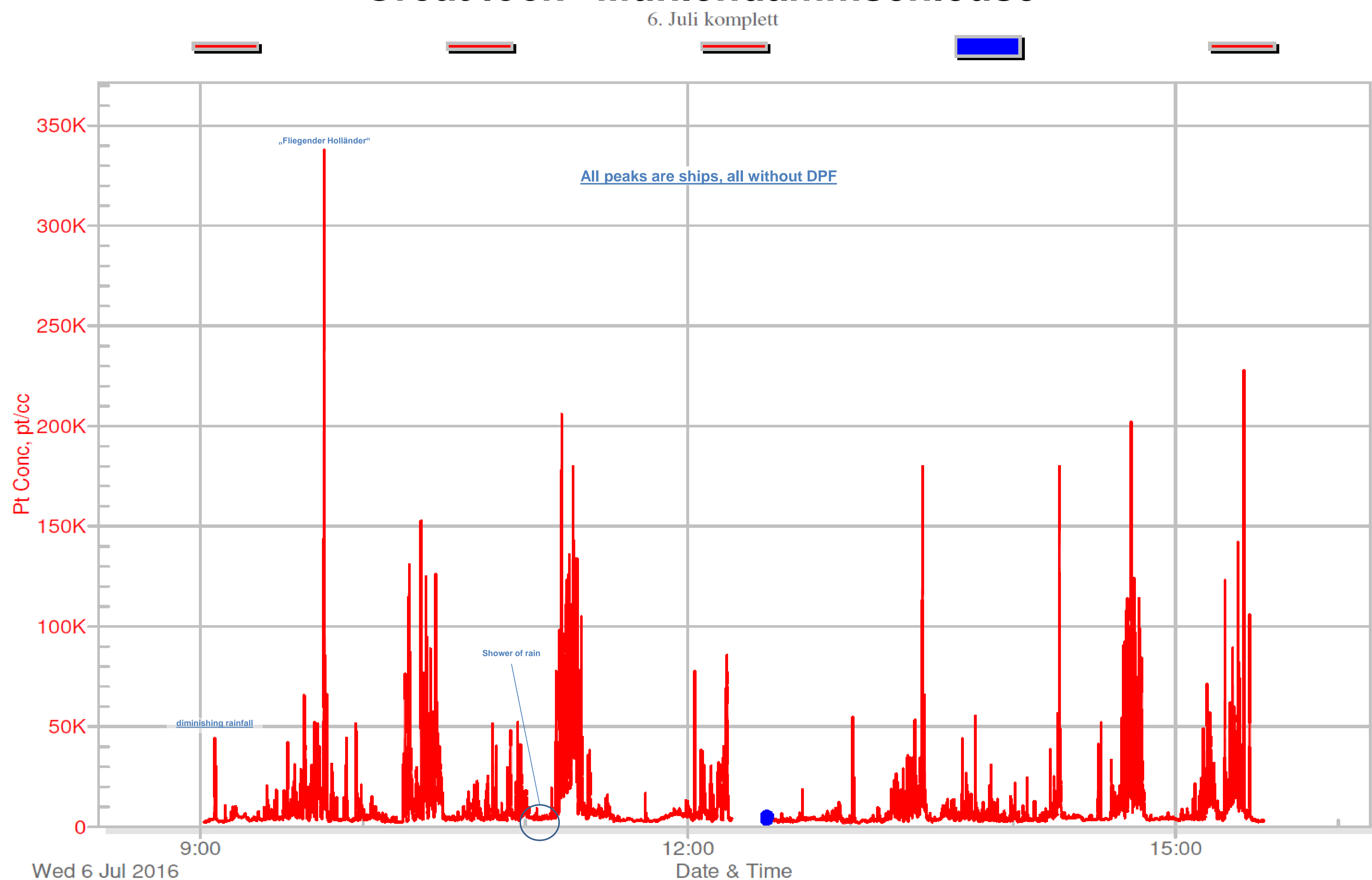


Table about typical particulatenumbers [pt/ccm]

733	air conditioned room (Meßzentrale)
5.000	jetty without ships
5.000	rural background Büttnershof
12.000	traffic island, Karl-Liebknecht-Straße/ Spandauer Straße
12.000	in the S-Bahn
15.000	5m from unconspecuous taxi (with DPF)
20.000	urban background with cigarette smokers
25.000	5m from sightseeing bus (with DPF)
30.000	in a car on the motorway (Stadtautobahn)
34.000	5m from the edge of a street ("Alexanderplatz-Passage")
55.000	5m from light duty vehicle "Euro 4 ohne Filter"
71.000	5m from Mercedes-Taxi (without or broken DPF)
over 80.000	old Mercedes D at a great distance
120.000	5m from sightseeing bus (without or broken DPF)
175.000	lock 8m away from and 2m higher than exhaust
400.000	at a distance of 2m from the exhaust of MS Poseidon
500.000	Exhaust of a warm-air heating ,measurement interrupted to protect the measuring device

Particulate number measurement is a simple, reliably detection of particle emissions

Target is präsentation of the unallowed manipulations and the potential of this differences for the Berlin air quality