

Application Examples



**Tobacco Smoke/
E-Cigarette Vapors:**
whole aerosol and gas phase



Environmental Aerosol:
industrial emissions, exhaust gas from combustion processes, environmental pollutants in general, allergens



HICE:¹
combustion derived aerosols from ship diesel and automotive engines as well as from wood stoves



C³:
aerosol generated from cutting process of carbon concrete composite



ProCycle:
aerosol derived from recycling processes of nanocomposites

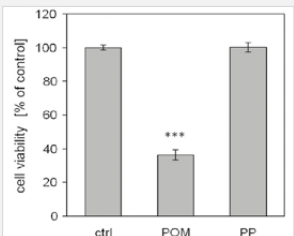


NanoMILE:
investigation of nanoparticles

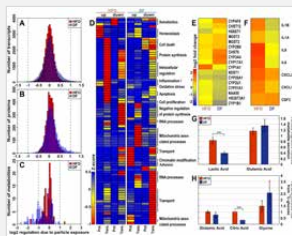
Aerosol Sources



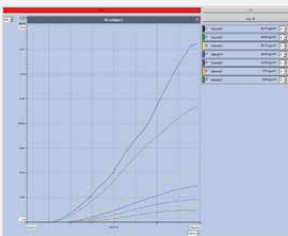
Test Results



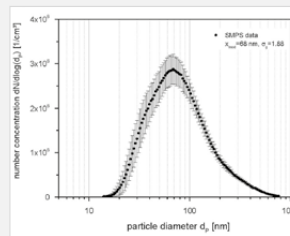
Basic Assays:²
cell viability, cytotoxicity
see also VITROCELL® Assay Guide



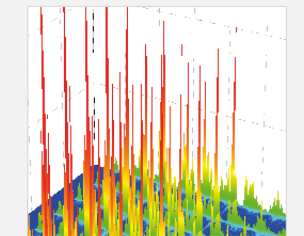
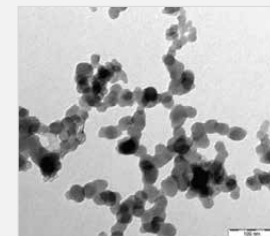
Omics-Analysis:³
metabolomics, transcriptomics,
proteomics, micro-RNA



Dose monitoring:
online dose determination



Physical Aerosol Characterization:¹
number size distribution, morphology



Chemical Characterization:
mass spectrometry

¹ © panalot - Fotolia_69734198

² S. Müllhopt et al. / Journal of Aerosol Science 96 (2016) 38–55

³ Oeder S, Kanashova T, Sippula O, Sapcariu SC, Streibel T, Arteaga-Salas JM, et al. (2015) Particulate Matter from Both Heavy Fuel Oil and Diesel Fuel Shipping Emissions Show Strong Biological Effects on Human Lung Cells at Realistic and Comparable In Vitro Exposure Conditions. PLoS ONE 10(6): e0126536. doi:10.1371/journal.pone.0126536