

Work Area 1

Development and application of the Karlsruhe exposure system for the deposition and toxic assessment of inhalable fibers and dusts on cell cultures

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Focus of investigation

Investigations into the deposition behavior of inhalable particles on interfaces exposed to laminar flow.

Industrial nanoparticles, emissions from technical processes, as well as fibers and additives made from high-performance materials are being investigated. Examples include titanium dioxide, cerium oxide and carbon fibers.

Development and application of various dosimetry methods, including online monitoring. Among others, fluorescein sodium salts and monodisperse polystyrenes are used.

The laboratory is equipped with extensive dosing technology and particle measurement instruments.

