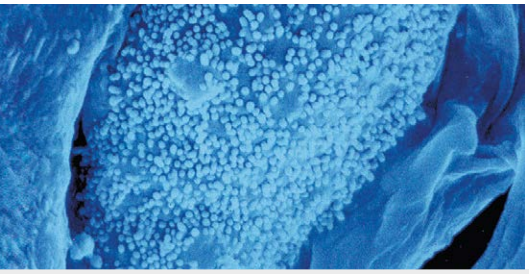
Advanced in vitro exposure systems

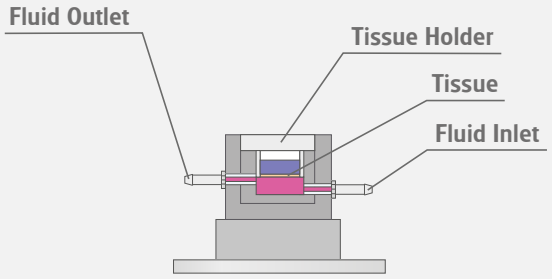
VITROCELL® Cloud Skin



VITROCELL® SYSTEMS

VITROCELL® Cloud Skin

For the exposure of tissue to liquid aerosols



Exposure Surface: 1 cm²
Receptor Fluid Volume: 2,5 ml or 5,0 ml

This system is specifically designed for dose-controlled and spatially uniform deposition of liquid aerosols on skin samples. The aerosol is applied for a short time of approx. 3-4 minutes.

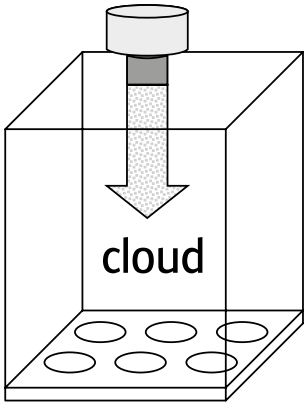
The Cloud aerosol chamber is made of Polycarbonate. There are 2 options for the aerosol generation:
Aeroneb® Lab with a particle size of 4.0 µm – 6.0 µm VMD or Aeroneb® Pro with a larger span of 2.5 to 6.0 µm VMD. Nebulizers for larger particle sizes are available upon request.

The VITROCELL® Cloud can be used for aerosols generated from liquids and suspensions. Possible fields of application include toxicity testing including nanoparticle suspensions. The unique tissue holders have been specifically designed to enable tight and reliable skin fixation. This module is a legitimate and superior alternative to Franz cells.

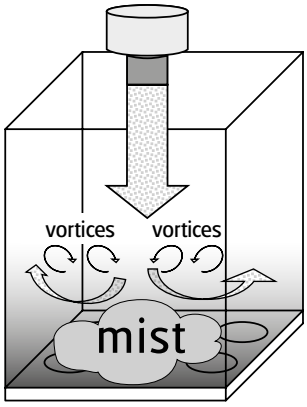
Please download the VITROCELL® Cloud demonstration video from our website.

Holders for punched skin samples and for culture inserts available

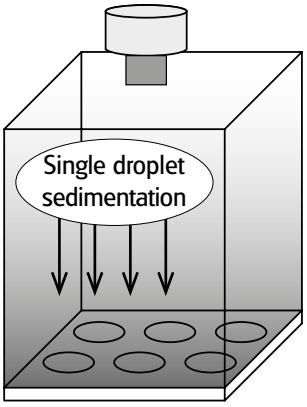
VITROCELL® Cloud Skin
for 12 skin tissue holders or 12 inserts (12-well size)
with 9 places for exposure and 3 places for clean air control.



Phase 1
Emission Of Cloud



Phase 2
Homogeneous Mixing

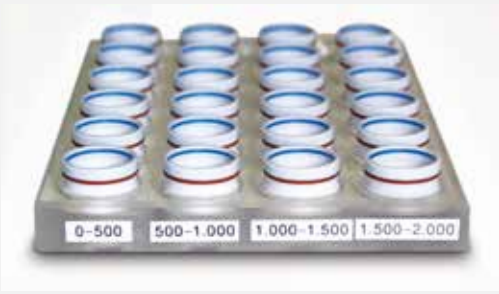


Phase 3
Gravitational Settling

Features

- New exposure system for liquid aerosols
- High droplet output rate – cloud dynamics
- No external air-flow required (simple)
- No humidity control required
- Dose-controlled and spatially uniform aerosol deposition
- Small residual volume in nebulizer reservoir
- Easy handling
- Unique tissue holder

Tissue holder with extraction tool



The system is provided with a full set of holder counterparts.
Thickness ranges:

- 500 µm
- 500 – 1.000 µm
- 1.000 – 1.500 µm
- 1.500 – 2.000 µm

VITROCELL® SYSTEMS

About VITROCELL®

VITROCELL® exclusively concentrates on the developing, producing, installing, training and servicing of advanced *in vitro* exposure systems.

The VITROCELL® Systems' team is driven by their vision for new in-vitro standards through state-of-the-art technology, highly qualified workmanship and absolute client dedication. VITROCELL® has successfully collaborated with clients from leading research institutes, contract research organizations, regulatory authorities or industrial laboratories across the world. Working with our team experts, all modules have been tailored to create durable and complete turnkey-systems for ***in vitro*** inhalation toxicology. Gases, environmental atmospheres, nano particles and complex mixtures are analyzed on lung cells at the air/liquid interface using these systems. VITROCELL® technologies are also applicable to solutions for skin research.

Over a decade of devotion to research in this specific field has given our team of design & precision manufacturing specialists the opportunity to mentor highly diversified and complex projects **from conception to completion**. We strive to become a constructive member of each research team, providing support when it is needed, advice when it is required and modules of the highest quality, which are even polished by hand before leaving here to be integrated into your workspace. Every piece of our German engineered equipment is manufactured to the highest of standards – yours.

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