# Advanced in vitro exposure systems







VITROCELL® Flow 4



# **VITROCELL® Flow 4**

Next generation exposure module for in vitro inhalation toxicology – for continuous flow with enhanced capabilities

# Universal Exposure Module

6-, 12, and 24-well sized inserts



VITROCELL® Continuous Flow Exposure Systems have set the standard for exposing cell cultures to a dynamic range of gases, complex mixtures or particles. Now we introduce the new generation of exposure modules.

This NextGen module isn't just an addition to our lineup; it's a transformative platform that redefines what's possible in inhalation toxicology in vitro. Here's why:

## Versatility

The universal platform accommodates 6-, 12- and 24-well sized inserts, making it adaptable to a wide range of research needs.

## **Precision Temperature Control**

Electrically heated top and base ensure a stable environment at 37°C, with LED indicators for readiness, ensuring your samples are maintained at optimal conditions.

Removable media compartments made of stainless steel for quick and easy cleaning.



Exchangeable aerosol inlets ensure a versatile use of exposure module. The top and base modules incorporate integrated electrical heating.



#### **Simplified Operation**

Experience hassle-free locking/closing in combination with a "sandwich" design for easy handling. The specially engineered 0-ring mountings ensure quick 0-ring exchanges and super tight sealing.

#### **Advanced Monitoring**

Optional in-cavity measurements of relative humidity and temperature provide a detailed and online view of cell relevant exposure data.

#### **Integrated Design**

Full QCM compatibility and a seamless integration into VC Monitor Software: you manage to visualize up to 5 exposure modules via one power-hub.

#### **Elevate Your Research**

With the VITROCELL® NextGen Modules it has never been easier for researchers to explore the frontiers of aerosol science. We present the future of in vitro inhalation toxicology research with our new platform that combines versatility, precision control, and ease of use.





Easy-to-use closing and locking mechanism (left).
Interface connectors for real-time data visualization (right).





Full QCM compatibility and connectivity to VITROCELL® Monitor Software.

### **Key Features:**

- Universal platform for different insert sizes and brands:
   6-, 12- and 24-well sized inserts
- Electrically heated top and base with LED indicator when ready to use (heated up to 37°C)
- Hassle-free locking/closing mechanism
- o Sandwich design simplifies handling
- $\circ$  Pre-defined inlet height according to the used insert sizes
- $\circ$  Easy 0-ring mounting for super tight sealing

- In-cavity relative humidity and temperature measurement capabilities
- Optional Thermophoresis feature
- Full QCM compatibility
- O Removable media compartments for easy cleaning
- Fully integrated into VC Monitor Software
   (1 to 5 exposure modules connected via power-hub)
- Designed for highest durability and long lifetime



#### **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.

For more information please scan the QR-Code:



