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## Mesoscale Chemical Systems Chair at University of Twente Implements Cuttingedge OB1 MK3+ Pressure Controller for ALCYONE Project

The Mesoscale Chemical Systems Chair at the University of Twente proudly announces the acquisition and implementation of the state-of-the-art OB1 MK3+ Pressure Controller from Elveflow. This advancement marks a significant leap forward in enhancing precision and control within microfluidic systems, particularly in the context of the esteemed ALCYONE project.



The OB1 MK3+ Pressure Controller, renowned for its unparalleled accuracy and versatility, has been seamlessly integrated into the research infrastructure at the Mesoscale Chemical Systems Chair. Equipped with advanced features tailored for intricate experimental setups, this cutting-edge controller empowers researchers with unprecedented control over pressure dynamics, facilitating precise manipulation and characterization of microfluidic systems.

Dr. D. Jonker, a Postdoctoral researcher at the Mesoscale Chemical Systems Chair, expressed enthusiasm about the potential impact of this acquisition on the ongoing ALCYONE project. "The OB1 MK3+ Pressure Controller represents a significant enhancement to our experimental capabilities. Its precise pressure control mechanisms enable us to delve deeper into the complexities





of wetting in microconfinements, unlocking new insights crucial for advancing our understanding of fundamental phenomena and driving innovation in various application domains."

The ALCYONE project focuses on researching and analyzing in situ space environment effects on model biological systems. The project will design a lab-on-chip with thin-film sensors and actuators that will utilize bioluminescence to study cell culture and radiation effects during space missions. With the implementation of the OB1 MK3+, the project stands to benefit immensely from its integration within the lab-on-chip environment. By leveraging its cutting-edge functionalities, researchers aim to unravel intricate dynamics governing microfluidic systems, paving the way for transformative advancements in fields ranging from materials science to biotechnology.

The acquisition and installation of the OB1 MK3+ Pressure Controller underscore the Mesoscale Chemical Systems Chair's commitment to fostering excellence in research and innovation.

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**About the University of Twente:** The University of Twente, located in Enschede, Netherlands, is renowned for its focus on technology, engineering, and social sciences. The university is committed to driving innovation and societal impact through interdisciplinary research and education.

**About Elveflow:** Elveflow is a leading provider of cutting-edge microfluidic instruments and solutions. With a commitment to innovation and excellence, Elveflow empowers researchers worldwide to push the boundaries of microfluidic research and accelerate advancements in various fields, including biotechnology, materials science, and nanotechnology.

