- HIGH STABILITY
- MICRO FLOW
- GAS MIXING

A SOLID BUSINESS CASE IN COLLABORATION WITH
THE "HUMBOLDT UNIVERSITY"

GENERAL INFORMATION ABOUT THE PROJECT

TARGET OF THE PROJECT:
Vapour concentration control of solvents by mixing dry nitrogen with one bubbling through a solvent of interest (water, ethanol or other organic solvents).

DEPARTMENT:
Humboldt University of Berlin, Deparment of Physics

HEAD OF PROJECT MANAGEMENT:
Jürgen Rabe

ROLE OF MCQ INSTRUMENTS:
To provide precise and stable gas mixing.

MORE INFORMATION ABOUT THE UNIVERSITY

The Humboldt University of Berlin is divided into nine faculties, including its medical school shared with the Free University of Berlin, has a student enrollment of around 32,000 students, and offers degree programmes in some 189 disciplines from undergraduate to postdoctorate level. The university is known worldwide for pioneering the Humboldtian model of higher education, which has strongly influenced other European and Western universities.

DESCRIPTION OF THE APPLICATION AND THE TARGET

Mixing of dry nitrogen with nitrogen bubbling through washing bottle filled with solvent of interest (e.g. water). In the example with water, this should allow to control relative humudity of our samples, i.e. sample cell. Water can be replaced onto other organic solvents. We are especially interested in precise control of slow flows, since the flow should flush a sample cell of a noise sensitive instrument.
Therefore the GB2000 sounds like better choise.

The contamination of nitrogen one can actually smell simply as a kind of "plastic" smell. Nitrogen passing through e.g. PE pipes starts to smell after "plastic". Therefore, it is essential for us to use rather inert materials.

We are interested to keep our samples under certain humidity for over day or longer, therefore we are looking to replace operator who controls the valves manually onto an automatic mixing station, i.e. MCQ solution.

BENEFITS AND SAVINGS

FLOW STABILITY:

Thanks to our revolutionary method every gas flow has a great stability making possible to have a stable flow also for lower flow-rate.

WITHOUT MCQ?

The previous solution didn't help to get progress for the research. So the Humboldt U. moved to MCQ Instruments,

TIME SAVINGS:

Easier setup management of the hardware.
Easier setup management of the software.

SOFTWARE AUTOMATION:

Thanks to our Software PRO Version and its option "Automatic Program", now the Humboldt University of Berlin can bring forward experiments in automation.

MICRO FLOWS - NO CUT OFF:

Our GB2000 Series allows the Humboldt U. to control the flow in all the calibration range, from 0,1 ml/min to 2000 ml/min with NO cut-off.

SUCCESSFUL ACHIEVEMENT:

Replace an operator who previously controls the valves manually with our Automatic Gas Mixing Solution.

READY TO TALK ABOUT YOUR SOLUTION?

info@mcqinst.com - www.mcqinst.com