R&D Statement

Introduction

The company Eppendorf knows its clients and their specific needs very well. In the following interview, we would like to introduce our valued Employer Henner Tasch.

How can Eppendorf ensure to develop innovative products?

“To develop and produce premium products we have to expand our expertise constantly, for example by getting the best external partners to discuss our ideas and learn about emerging technologies. One of our partners for the development of the Mastercycler® X50 was the Fraunhofer IPM for physical measurement techniques, a leading European research facility for microelectronics and microsystems technology. The Peltier modules are the heart of the PCR instrument. To achieve top heating and cooling rates of up to 10°/s we worked together in scrutinizing tests and were able to find and validate an extremely fast, stable and slim Peltier modules.

The Mastercycler X50 not only has six of these Peltier modules, but also six control circuits to enable highest reproducibility and features such as the innovative 2D gradient technology. However, the most important issue in all of these tests was to be able to guarantee the quality over the entire life cycle.”

Can you shortly describe the principles of your R&D work?

Customers are used to the nice design of Eppendorf products and surely expect that the interior of the product is similarly beautiful and smart. As a consequence we are developing the inner workings of the PCR instruments with the same or even higher accurateness or precision as the outer surface and user interface.

As an example, we are using central fixing points to mount every single Peltier module in order to have a very robust, less physically stressful fitting. That results in a longer life-time of the Peltier modules as well. Another benefit is that we avoid cold spots at the boundary areas of the well block by optimizing the heating area and the insulation. Thus, researchers can benefit from our superior block homogeneity and use any position of the block with trust in reliable performance even in the outer well positions. Our R&D efforts guarantee that customers are not only getting nice instruments that are easy to use and very quiet. The carefulness we are spending on development and production results in innovative features and long-life instruments that make the researchers’ life easier.”

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