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## Quality control of DNA and RNA samples

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*Electrophoresis with agarose gel is an important method for analysis and quality control in the life sciences. The basis for precise results is the accurate filling of the agarose columns. This process works with metal-free pumps from HNP Mikrosysteme GmbH.*

Pumps from HNP Mikrosysteme are used for demanding filling tasks in various industrial sectors. One task is the production of agarose columns for electrophoresis applications. Here, a low-percentage agarose solution is filled into plastic capillaries at up to 65 °C in dosing quantities of 30 µl - 50 µl. The modular pump mzs-2942 is used. It is a metal-free pump. The wetted parts of this pump are made of ceramic and PEEK to prevent transfer of metal ions.

Agarose gels are used, for example, for the quality control of DNA and RNA samples after critical work steps during the production of genomic libraries. Sample volumes of only 2 µl - 5 µl are required. The results are available after just 20 to 30 minutes.

HNPM pumps ensure process reliability in applications where extremely small quantities of liquids are required. Five series of micro annular gear pumps (mzs-pumps) enable the smallest dosing volumes from 0.25 µl and volume flows from 1 µl/h to 1152 ml/min.

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### **HNP Mikrosysteme**

HNP Mikrosysteme GmbH, located in Germany, develops, manufactures, markets pumps and systems worldwide which deliver small amounts of liquids fast and accurately. Beside several applications in plant engineering, chemical processing and pharmaceutical processing, mzs-pumps are used in the field of life science and analytical instrumentation.



Metal-free micropump mzr-2942X1-cp for filling agarose

*Bild 1: hnpm\_metallfreie\_pumpe\_mzr-2942-cp.jpg  
(Source HNP Mikrosysteme)*

**Note to the editors:**

If you need to shorten the company name "HNP Mikrosysteme", please use the term "**HNPM**".

Let's meet at the following trade fairs:

- **Analytica**, Munich (April 9 to 12), B1.406
- **Achema**, Frankfurt (June 10 to 14), H8.J95