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1 *Just a little larger than a shoebox: the demonstrator analyzes water samples at the waterworks itself.*

2 *The quantum cascade laser module is the key component of the analyzer.*

QUANTUM CASCADE LASER FOR MONITORING DRINKING WATER

The quantum cascade laser of Fraunhofer IAF enables fast and reliable detection of hazardous chemicals in drinking water in waterworks facilities. There is no need for transferring water samples from the waterworks to the laboratory. The instrument runs permanently in a bypass configuration during full operation of the waterworks facility. By using spectroscopy in the molecular fingerprint region, the analyzer identifies hazardous chemicals within a few minutes.

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Features

- Fully autonomous sampling in bypass configuration
- Reaction time of only a few minutes
- Low maintenance effort
- Size: 40 cm x 36 cm x 27 cm
- Typical sensitivity: 25 mg/l

Applications

- Sensing of hazardous chemicals in drinking water
- Analysis of drinking water
- Foodstuff testing
- Disinfection
- Water desalination