GFZ Helmholtz Centre for Geosciences

TECHNOLOGY OFFER



Automated water sample collector for environmental analysis

The automated sampler enables autonomous, robust sampling. It can be used in the field for several years to obtain and store water samples for environmental analysis (including isotope analysis). Sample storage takes place without atmospheric exchange and enables the following analyses: environmental monitoring, water analysis, isotope analysis, tracer analysis.

Users/ Customers

gsuitable for end customers from science and authorities as well as service companies (environmental monitoring, water, pollutant monitoring, nuclear energy, etc.)

Stage of development

Construction and testing of several prototypes completed. There are design drawings and a selfdeveloped control software available. Furthermore, there is know-how for optimal production as well as a large database from 3 years of field testing in demanding environments (areas with very high rainfall, hot and arid areas as well as tests in places with snow and permafrost). Device publication in preparation.

Offer

Product launch as part of a licensing or further development with interested companies.

Unique selling points

- Compact: ideal installation options
- Steadfast: field-compatible processing for long-term use
- Reliable: long-term tested autonomous system
- **Safe:** Long-term preservation of samples
- Remote control: no system maintenance effort
- Flexible application: Sampling protocol by time interval or volume
- Valid results: Sampling without crosscontamination
- Extensive database: high number of incremental samples (165)
- High-resolution: fast triggering of individual samples
- Long service life: comparatively low energy consumption
- Self-Sufficient, flexible energy supply: battery, solar module or grid operation
- High scalability: modularity of the system

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