

Cytobuoy Instruments for Water Quality Monitoring

Cytobuoy b.v. presents a range of advanced instruments for water quality monitoring based upon the principle of flow cytometry. The instruments can be used for fresh waters, marine waters and brackish (estuarine) waters. The main feature of the instruments is their ability to detect all sorts of particles with sizes between 1 micron and 1 mm: this includes sediments and plankton. The fluorescence of the particles allows identifying different species of plankton. Processing software presents the data and the results to the user, allowing for an automatic identification of plankton species. This is the main advantage of the instrument over traditional methods in plankton research: a very high speed and consistency of the plankton analysis of water samples. The system comes in three versions: the laboratory bench-top version (Cytosense), a mobile version for vertical profiles or horizontal transects (Cytosub) and a version mounted in a buoy hull for long time standalone operation. This last version includes batteries and solar cells, as well as facilities for real time data transmission (Cytobuoy). The buoy version can operate autonomously up to six months without maintenance. The instruments find their application in real time, in situ monitoring of coastal waters and fresh water reserves, as well as for laboratory use in support of plankton related research. Systems are already in operation in different parts of the world.

<https://www.hydro-international.com/content/news/cytobuoy-instruments-for-water-quality-monitoring>
