COD (CHEMICAL OXYGEN DEMAND) ON-LINE MEASUREMENT DEVICE

CONTACT DETAILS:

Research Results Transfer Office-OTRI
University of Alicante
Tel.: +34 96 590 99 59
Email: areaempresas@ua.es
http://innoua.ua.es

ABSTRACT

COD (Chemical Oxygen Demand) is a widely known parameter used to measure water quality. It is a measure of water pollution resulting from organic matter. This parameter is defined as the amount of oxygen required, or equivalent, for the oxidation of all chemically oxidyzable matter contained in a water sample.

ADVANTAGES AND INNOVATIVE ASPECTS

The main innovative aspects of this new device are:

- Significant reduction in the reaction time, in contrast with the conventional method.
- Fully automated, flexible and easy-to-handle equipment.
- Absence of chloride ions interference up to a concentration of 8.000 ppm

• Useful for all kinds of water samples, including hardly oxidizing samples such as phenolic samples. It can measure up to 3.000 ppm of phenols.
• No previous system for sample treating or conditioning is required. Produces a small amount of waste and the use of Hg salts is not required due to the absence of chloride ions interference.

MARKET APPLICATIONS

COD automatic measurement device can be used for the analysis of any waste water stream, both in continuous or in batch. Due to its high level of flexibility, automatization and simplicity of handling this device can be used in at-line, online and in-line modes. It can be applied to waste water treatment and purification plants, urban as well as industrial, and to the control of processes that made use of waste waters in which the quality of water is critical.

COLLABORATION SOUGHT

Two types of cooperation are sought by the Department of Analytical Chemistry of the University of Alicante:

• Transfer the design and manufacturing know-how of this device to companies involved in analysis equipment that may be interested in its marketing.

• Design and manufacture this device particularly for any company/institution interested in at-line, on-line and in-line measurements.