

SERVICE

In addition to LAR's 12-month warranty on parts and labor, LAR, LLC offers it's customers quarterly and biannual maintenance contracts. Customers with maintenance contracts benefit from significantly discounted maintenance and repair when compared to on-demand service. Call LAR, LLC today to find out how our factory-authorized service technicians can help you achieve the greatest possible benefit from your investment.

QuickREPLY

Please send me information on the following products:

- TOC pH Susp. Solids Respirometry (lab)
 COD ORP Ammonium Respirometry (portable)
 BOD DO Nitrate Sludge Controller
 TNb Chlorine Conductivity
 Toxicity Turbidity Other

First	Last
Title	
Organization	
Street Address	
City	State / Prov.
Country	Postal Code
Phone	Fax
E-mail	

I WORK IN THE FOLLOWING INDUSTRY:

- | | |
|--|---|
| <input type="checkbox"/> A&E Firm | <input type="checkbox"/> Meat Processing |
| <input type="checkbox"/> Airport Deicing | <input type="checkbox"/> PetroChemical |
| <input type="checkbox"/> Beverage | <input type="checkbox"/> Petroleum Refining |
| <input type="checkbox"/> Biotechnology | <input type="checkbox"/> Pharmaceutical |
| <input type="checkbox"/> Brewing | <input type="checkbox"/> Power |
| <input type="checkbox"/> Chemicals | <input type="checkbox"/> Pulp and Paper |
| <input type="checkbox"/> Distilled Spirits | <input type="checkbox"/> Semiconductor |
| <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Starch |
| <input type="checkbox"/> Dairy | <input type="checkbox"/> Sweeteners |
| <input type="checkbox"/> Edible Oils | <input type="checkbox"/> Wastewater |
| <input type="checkbox"/> Food Processing | <input type="text"/> Other: |

Call us at (262) 429-1310, fax to (262) 429-1313

or send e-mail to Marketing@larllc.com



1701 Creek Road, Suite D
West Bend, WI 53090



LIQUID ANALYTICAL RESOURCE

INSTRUMENTATION FOR WATER, WASTEWATER & PROCESS INDUSTRIES

Instrumentation for:



- | | |
|-------------------------|---------------------------------|
| ▲ TOC | ▲ Respiration (OUR/SOUR) |
| ▲ COD / TOD | ▲ MLSS |
| ▲ Total Nitrogen | ▲ TSS of settlement supernatant |
| ▲ BOD | ▲ Settlement Test |
| ▲ pH/ORP | ▲ SVI / SSVI of settlement test |
| ▲ Conductivity | ▲ Carbonaceous bacteria % |
| ▲ Dissolved Oxygen | ▲ Carbonaceous bacteria health |
| ▲ Turbidity | ▲ Nitrification bacteria % |
| ▲ Suspended Solids | ▲ Nitrification bacteria health |
| ▲ Chlorine | ▲ Critical Carbonaceous DO |
| (Free, Total, Combined) | ▲ Critical Nitrification DO |
| ▲ Chlorine Dioxide | ▲ Ammonium |
| ▲ Peracetic Acid | ▲ Nitrate |
| ▲ Ozone | ▲ Toxicity |

Online monitoring and process control can improve your organization's bottom line through optimized efficiency and reduced waste while alerting plant operators to non-compliant influent or discharge.

Liquid Analytical Resource, LLC has demonstrated expertise through hundreds of installations serving many process industries, including...

- Airport Deicing
- Food and Beverage
- Chemical
- Petrochemical
- Petroleum Refining
- Drinking Water
- Sweeteners
- Starch & Edible Oils
- Pulp and Paper
- Pharmaceutical
- Biotechnology
- Power
- Semiconductor
- Municipal Wastewater
- Industrial Wastewater

... Many Others!

TOC, COD/TOD, TNb, BOD



High Temperature Combustion

LAR AG's online analyzers for TOC and COD use combustion at 1200°C for accurate measurements without reagents in only 1 minute (TC) or 3-minutes (TOC / COD). LAR's filter-free sampling provides truly representative results in water ranging from high purity to viscous waste streams. Configurations are available for up to 6-streams, and a single analyzer can be configured for TOC, COD and total nitrogen. Enclosures are available for IP53, NEMA 4X, Class I Div II or Zone 2. LAR's combustion analyzers are engineered for low maintenance and low operating cost.

*** Our bench-scaled systems are ideal for your laboratory!**

- | | |
|---------------------------------|---------------------------------|
| QuickTOC_{ultra} | QuickCOD_{ultra} |
| ▲ EPA Method 415.1 | ▲ ASTM-Method D6238-98 |
| ▲ TOC, TIC or TC | ▲ 3 minute COD/TOD |
| ▲ 10ppb to 50,000 ppm | ▲ 1 to 200,000 mg/L COD |
| ▲ 1-minute TC, 3-min. TOC | ▲ No Toxic Reagents needed |

Chemical Analytical Methods

LAR's **ELOX-series** provides 2-minute COD.

- ▲ Ranges from 1 to 100,000 mg/L COD
- ▲ No hazardous reagents
- ▲ 2-channel option for multi-point COD



Elox 100

UV-Persulfate TOC

LAR's **QuickTOC_{uv}** provides continuous TOC/DOC analysis down to 0.1 mg/L for ultrapure and clean water applications.



QuickTOCuv

Rapid, Continuous, On-line BOD

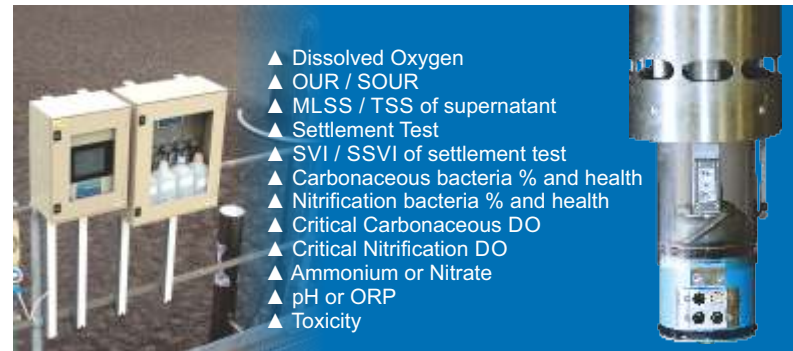
LAR's **BioMonitor** measures BOD online with a high correlation to BOD₅. Using your sludge and effluent, the 4-vessel cascade reactor duplicates your sludge plant. The BioMonitor metabolizes organics in 3 to 4 minutes and detects deviations in strength of influent.



BioMonitor

- ▲ Range: 1 - 200,000 mg/L BOD
- ▲ High correlation to BOD₅
- ▲ Results in only 3-4 minutes
- ▲ Concurrent sludge & BOD monitor

RESPIROMETRY



- ▲ Dissolved Oxygen
- ▲ OUR / SOUR
- ▲ MLSS / TSS of supernatant
- ▲ Settlement Test
- ▲ SVI / SSVI of settlement test
- ▲ Carbonaceous bacteria % and health
- ▲ Nitrification bacteria % and health
- ▲ Critical Carbonaceous DO
- ▲ Critical Nitrification DO
- ▲ Ammonium or Nitrate
- ▲ pH or ORP
- ▲ Toxicity

In-Situ Respirometry - and so much more!

The **ASPCON** provides a wealth of knowledge-based control options in activated sludge. The world's only in-situ respirometer, this multi-parameter probe also offers many other supporting measurements. Running on a Windows platform, simple menus provide flexibility and ease of use. This fully integrated system is engineered to be self-cleaning and auto-calibrating for months of unattended operation.

Laboratory Respirometer



Strathkelvin's **Strathtox** is a fully integrated laboratory-scale respirometer for measurement, control and logging in activated sludge plants. The easy-to-use software provides automated, graphed results in ten minutes or less.

The **Strathtox** measures toxicity (*respiration inhibition, nitrification inhibition*), aeration efficiency, sludge health and BOD.

Portable Respirometry



The portable **AS Bioscope** provides quick, easy basin-side Oxygen Uptake Rate (OUR), measurements, plus temperature, DO and settling. The AS Bioscope helps to determine critical oxygen points for treatment optimization.

The newly re-designed AS Bioscope is tablet-based, operating with MS Windows® for easy USB data transfer. The AS Bioscope is Bluetooth-enabled for wireless communication between the sensors and the tablet.

- ▲ Toxicity Management
- ▲ Process Optimization
- ▲ Rapid testing of tanker waste
- ▲ Pilot plant monitoring
- ▲ Nutrient Feed Optimization
- ▲ Nitrification Management

ONLINE ANALYTICAL INSTRUMENTS

LIQUID ANALYSIS FOR:

- | | | |
|---------------------------|--------------------|---------------------|
| ▲ pH/ORP | ▲ Turbidity | ▲ Combined Chlorine |
| ▲ Differential pH/ORP | ▲ Suspended Solids | ▲ Chlorine Dioxide |
| ▲ Contacting Conductivity | ▲ Peracetic Acid | ▲ Ozone |
| ▲ Inductive Conductivity | ▲ Free Chlorine | ▲ Ammonium |
| ▲ Dissolved Oxygen | ▲ Total Chlorine | ▲ Nitrate |

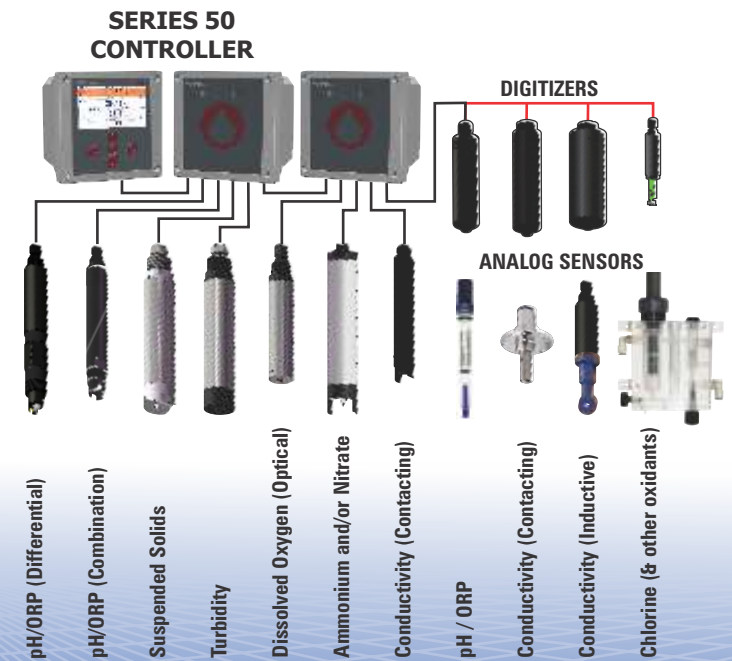
LAR, LLC is the Exclusive North American Supplier for the Extensive Line of Chemitec Analytical Instruments

Chemitec offers a comprehensive - *and growing* - family of sensors and controllers for online measurement in municipal and industrial water and wastewater. Ease of use is assured through simple menus, standard RS485 sensor connection, and built-in plug-and-play sensor recognition. The strong digital signal enables cable lengths up to 300 meters, and a family of digitizers enables the series 50 controller to be used with analog or third-party probes.

While Chemitec's systems are easy to set up and use, they don't skimp on features. These systems feature multiple analog and digital inputs and outputs, and even provide advanced PID control

Whether your application is routine, or highly sophisticated, Chemitec has solutions for most markets and applications.

Chemitec Sensors & Plug-and-Play Probes



APPLY POSTAGE HERE



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