

# Chemiluminescence services

Services provided on an order basis –  
ACL Instruments' applications  
laboratory.

## Introduction

ACL Instruments also operates a specialized service lab, allowing us to offer perfectly tailored analytical services and runtime on our chemiluminescence instruments. This allows us to precisely predict the oxidative decay of any of your compounds based on conditions during processing, application and storage. It also enables the quality of products to be efficiently examined before, during and after application. We can also monitor and optimize process parameters and product formulations in cooperation with customers.

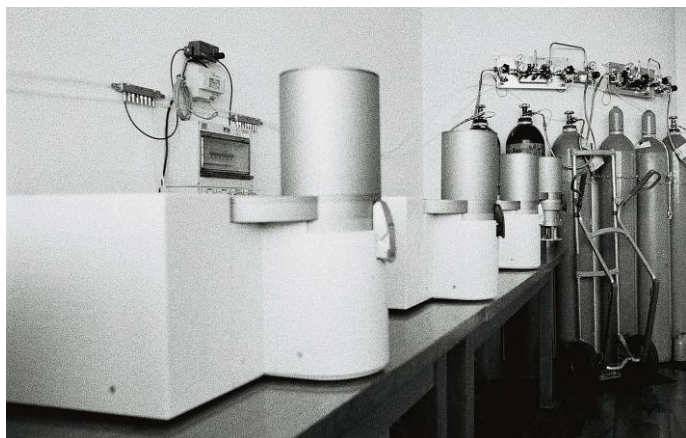


Fig. 1: Service lab with various CL equipment and the central gas supply.

## Type of services

As oxidative reactions are of a complex nature and influenced by various factors, we use a three-level approach to thoroughly analyze the decay of any given substance:

I. Experimental characterization of the oxidative reactions using our analytical instruments.

II. Kinetic analysis (differential isoconversional approach) of the experimental data to calculate the parameters of the activation energies.

III. Prediction of individual oxidative decay (reaction progress) depending on specific (individual) service application conditions.

This approach also allows the analysis of various states of degradation, as well as the measurement of the hydro-peroxide concentration. This provides added value, in particular with quality control (of formulations, processing conditions, batches, receipt of goods etc.) and complaint handling.

## Order management

ACL Instruments provides comprehensive customer service from offers to our three-level procedure for prognosis or quality assessment to detailed evaluation reports. Individual services can of course also be ordered separately. In addition to raw data (the measurement data in .csv format), the customer also receives the evaluation of the measurement data (e.g. oxidation induction time, oxidation onset temperature, CL integral, Arrhenius plots, differential isoconversional analysis of the activation parameters etc.). This allows you to focus on your core business and affordably outsource these requirements.

## Promotional services

If you would like to evaluate the chemiluminescence method for your application on-site, we also offer the option of promotional services. This type of service is provided free of charge for customers provided the purchase of equipment has been agreed.

## Contact us

Do you have a stability problem with a specific application? Do you want to improve your product or to assess processing quality on a day-to-day basis? Want to find out about the chemiluminescence method and its benefits? Please contact us if you would like to visit our service lab.