

# NEWSLETTER

LPD Lab Services

TEL: +44 (0)1254 676 074

One-Stop Shop for Industrial Process Problem Solving, Consulting and Routine Analysis

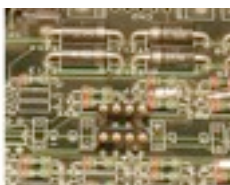
Welcome to our fourth newsletter. We send this infrequently as a means of keeping our customers up to date with some of our capabilities, services and news at LPD Lab Services. If you have colleagues who you think may be interested in hearing from us please feel free to forward this on to any interested parties.

## Chemical Cleaning and Degreasing

The laboratory has extensive experience in diagnosing and eliminating contamination from degreasing and subsequent rinsing processes. It also offers practical recommendations of alternative methods. Surface analysis techniques in particular are ideal for tuning of cleaning and rinsing processes with their surface chemical sensitivity. Rinsing practices are key as use of town water, insufficient rinse times or poor refreshing practices of baths with respect to process product throughput, can leave unwanted staining and contamination.

Tighter environmental and Health and Safety regulations mean that many industries are required to replace solvent based cleaning / degreasing processes with aqueous-based systems. Although aqueous degreasers are safer for operators, they tend not to be as effective: They leave remnants on the material surfaces, affecting a component's fitness for use. The lab has extensive experience in the change over of solvent based cleaning / degreasing processes to aqueous, and also of the problems this can lead to. We can work to isolate / identify contamination levels and offer elimination advice with optimised cleaning agent formulation, depending on our findings.

## Electronic Devices & PCB Manufacture



PCB & electronics supply chains for electronic component manufacturing need careful quality management. When there are failures it can be difficult to determine a root cause and where in the manufacturing process it occurred, especially when there are multiple suppliers in differing countries with differing standards of quality and reliability. Each supplier in the chain may / may not acknowledge whether they have issues and teasing out the process variation or issue can be difficult and time consuming.

The rapid determination of failures on finished products is essential to prevent 'bad' inventory build up, correct process variation, prevent waste and prevent customer returns. LPD Lab Services can analyse and reverse engineer PCBs, electronic sub-assemblies, device assemblies and their sensors to help determine the physical failure and where in the process the failure has likely to have occurred. This helps maintain good QA practices and quickly target weak links in the supply chain.

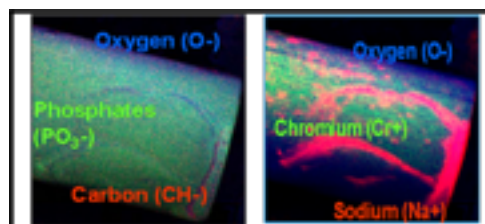
### Website Update

For more information on any of the subjects mentioned in this newsletter, please visit our website or feel free to call us on:

**TEL:** +44 (0)1254 676 074

**WEB:** [www.lpdlabservices.co.uk](http://www.lpdlabservices.co.uk)

We have an ideal range of Surface Analysis techniques that can help identify these issues. These include: XPS, SIMS and AES/SAM coupled with SEM/EDX and FTIR.



(SIMS chemical imaging showing the distribution of species across the aqueous degreased product highlighting residual degreasing agent).

## New Member of Staff

Dr. Howard Coulson joined the laboratory team in October last year.

He is working with Steve and Mike on the technical customer facing side of the business, generating quotes, project managing the lab's response and collating and sending reports to customers.



Howard brings a great deal of additional experience in product and process development, reverse engineering, primarily in the semiconductor and electronics field, as well as experience of practical work such as SEM/EDX and wet and dry etching, widening the technical capabilities of the existing team.

## Typical Laboratory Support Work

A new index listing of categorised Typical Laboratory Support Work has been added to the website to illustrate the typical work we do for customers. It aims to give customers an idea of the tailored type of work and projects we conduct on customer's behalf's using the diverse range of equipment available to us.

Customers are also more than welcome to visit the laboratory in Blackburn to discuss potential areas we can help in, and see what we can offer first hand.

For more information on PCB and Electronic Sub-Assemblies, or any other subject mentioned in this newsletter please visit our website [www.lpdlabservices.co.uk](http://www.lpdlabservices.co.uk) or feel free to call us on +0044 (0)1254 – 676 074.