

NEWSLETTER

LPD Lab Services

TEL: +44 (0)1254 676 074

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

Welcome to the laboratory's inaugural newsletter as LPD Lab Services Limited. We use this as a means of keeping you up to date with capabilities, services and news of our newly launched company after the management buy out.

Launch of LPD Lab Services Ltd.

The Laboratory has recently undergone a management buy out following the former parent company Blackburn Microtech Solutions Ltd going into administration. The new company LPD Lab Services Limited commenced trading on the 12th October with the same experienced technical staff but now is completely focused on meeting third party customer needs.

Our laboratory staff are experienced in solving problems in many different processes across a diverse range of industries. Experience is not only from work for Philips organisations, but has also been developed by providing analytical and consultancy services to third party customers since 2003.

Our Address	Contact Numbers
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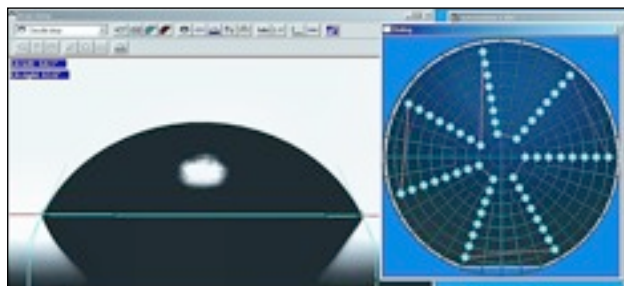
Bank details, Company's House Registration and VAT numbers have changed as a result of the management buy out. Further information can be obtained by contacting us directly.

Enhanced Capabilities in Surface Chemistry and Surface Wetting Characterisation

Surface chemistry and wetting characteristics of liquids and solids determine the performance of chemicals, surfactants, coatings, adhesives, powders and solid substrates. In many applications wetting affects the quality of products, their manufacturing processes or their performance at end use.

LPD Lab Services Ltd now has these capabilities with the introduction of two new machines DCAT11 and OCA35 to our already extensive range of surface characterisation instrumentation. Physical property measurements for the liquid interaction on the substrate can be achieved by contact angle measurements using the Optical Contact Angle and Dynamic Contact Angle Tensiometer instruments. These assessments are quantitative and can be tied into changes to surface chemistry by surface analysis techniques such as XPS, SIMS and AES. The physical behaviour can also be understood by using the SEM to visualise surface roughness, as this affects microscopic wetting and localised contact angles.

The combination of contact angle measurements, surface texture / roughness and surface chemical analysis can be used to unambiguously assess the affects of manufacturing process modification and formulation changes improving product performance or reliability of in-line processes such as coating systems.



Typical applications where wetting and contact angle measurements are important include the following materials and chemicals: Paints and Coatings, Printing Inks, Security Products and Holographic Systems, Petrochemicals, Paper and Paper Coatings, Polymers, Adhesives, Powders, Surfactants, Fibres, Contact Lenses, Medical Devices, Ceramics, Cosmetics and Healthcare, Microelectronics Wafer Surface Cleanliness and Agrochemicals.

Electronic Cigarette Chemical Evaluation

The Electronic cigarette is a device that delivers nicotine to the lung in the form of a vapour. The vapour is produced when the E-liquid is vaporised at low temperatures avoiding the combustion and pyrolysis effects of traditional tobacco cigarettes. The analysis of the nicotine solutions used in electronic cigarettes is of interest to manufacturers, retailers, consumers and the various Trading Standards bodies up and down the country.



The majority of nicotine solutions are imported from countries where good manufacturing practices (GMP) are not currently in place, and this potentially can lead to the incorporation of unwanted and dangerous substances into the 'raw' nicotine solutions. Importers may find batch-to-batch variations that are unacceptable and have an urgent requirement to do ongoing due diligence analysis work.

Gas Chromatography – Mass Spectrometry can screen the nicotine solutions for unwanted chemicals present (diethylene glycol, phthalates,) and give the 'nominal area percentage' of each chemical.

Each 'unknown' nicotine sample can also be analysed using our GC system. This method has been used to identify the variation of nicotine in the zero, low, medium and high nicotine solutions. Results can be quoted as either mg/cartridge, or converted to units such as mg/g of nicotine solution or percentage nicotine in the nicotine solution as required. The percentage nicotine is of importance for labelling considerations under the CHIP Regulations.

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**