BUSINESS CASE STUDY

PDR-Separations LLC

DALP, AutoMDS, AutoPREP
Real-Time Spectral Deconvolution

All Liquid Modes
and Scales

A QC lab supporting production of a food additives exhibiting optical activity and no chromophore inside a large manufacturing company

PROBLEM

The QC lab was struggling to process samples fast enough and accurately enough using Refractive Index (RI) detection and production was increasing

GOALS/SOLUTIONS

The company's QC lab manager needed to increase throughput and accuracy to support increasing production requirements

After discussions with PDR-Separations the company decided to replace all RI detectors with PDR-Separations Advanced Laser Polarimeters (ALP). These ALPs have been running since 1999 without issues.

In 2021 ALPs were upgraded to Digital Advanced Laser Polarimeters (DALP).

BENEFITS/ACHIEVMENTS

QC Samples are processed faster with more accurate results, down-time was essentially eliminated.

ALP/DALP robustness and convenience have been impressive, no failures and fully automated operation.

Critical ALP/DALP components, lasers, have lasted 10+ years while operated 24/7/365.

The company lab no longer needs to have as many backup systems to support continuous production.

Overall results show the QC Lab now processes 4 times more samples with improved accuracy in 70% of the space with 60% of the previous staff.

The combination of increased sensitivity and accuracy, along with impressive robustness and streamlined QC removed the previous QC bottle-neck from production.

The company's original investment in ALPs represented an excellent ROI especially since the ALP to DALP upgrades cost a fraction of the purchase price of a new DALP.

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