Project SENSE
led by Proxisense

Partners

University of Strathclyde Glasgow

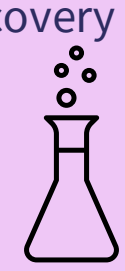
Proxisense

NPL

Issue or opportunity being addressed

Recovering and reusing isopropyl alcohol (IPA) can reduce solvent waste and energy use – but fluctuating concentrations make efficient recovery difficult

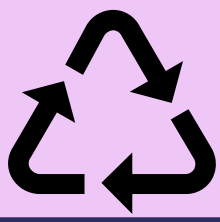
Solvent recovery (IPA)



Concentration fluctuates

Limited real-time process visibility

Reduced recovery efficiency



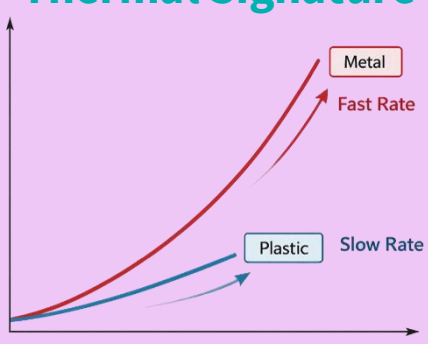
Introduction to the new technology or solution

LiquiSensor™ turns a simple measurement of heat transfer into real-time information about what's happening in a liquid

Heat Transfer between materials

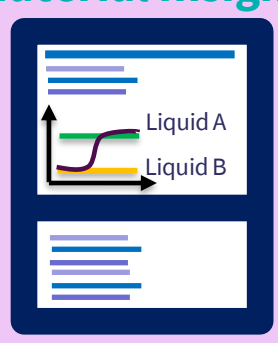
Touching metal vs plastic feels different

Thermal Signature



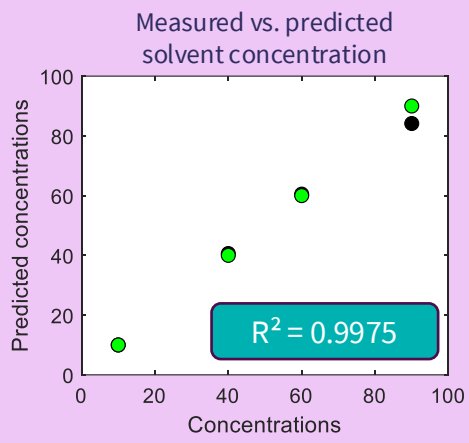
The rate of energy transfer varies between materials

Material Insight



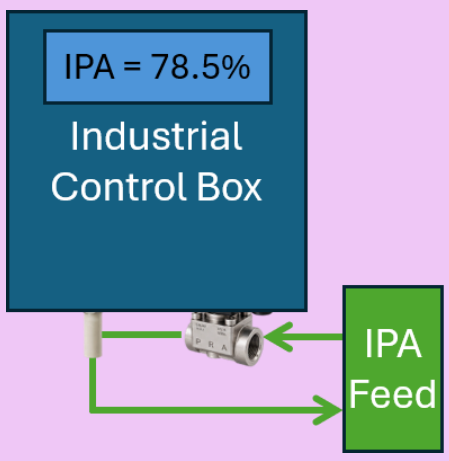
Differences in thermal transfer behaviour reveal material characteristics

Impact of the technology or solution



Validated - A top 10 global pharmaceutical company demonstrated quantitative organic solvent/water concentration monitoring in continuous flow

Integrated - Demonstrated integration into industrial process environments

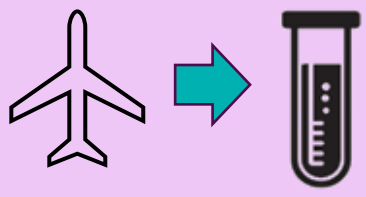


Sustainable - Real-time process insight supports process optimisation, helping to reduce material waste, improve resource efficiency and enable more sustainable manufacturing

Target market (commercialisation)

From aerospace to process industries

Originally developed for aerospace applications, the technology has evolved into a versatile platform for real-time monitoring across pharmaceutical, chemical and other high-value processes.



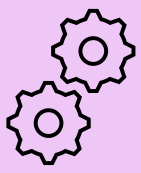
Pharma & Biopharma

Real time formulation & solvent monitoring

Specialty Chemicals

Process & composition monitoring

Process Industries



In-line monitoring & process optimisation

One platform. Multiple industries. Real-time process insight.

This project is part of the Sustainable Medicines Manufacturing Innovation Programme (SMMIP).
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