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**40 YEARS OF INNOVATION**

## **PRESS RELEASE**

### **Michell Instruments researchers pioneer progress in high pressure humidity calibration**

Michell Instruments Research has reported significant progress in its project with the National Physical Laboratory (NPL) to improve the current high-pressure dew-point generator technology.

Michell scientists are co-operating on the project with the NPL, which provides scientific consultancy and assessment services. The project is funded by the UK Technology Strategy Board. The aim of the work is to enable calibrations of water and hydrocarbon dew point to be made at line pressure, outside of national metrology institutes.

The research efforts have particular implications for the natural gas industry, especially for pipeline operators, as the ability to perform at-pressure calibrations for both water and hydrocarbon dew point will improve confidence in the measurement of these two gas quality parameters at custody transfer of transmissions pipelines. The system offers flexibility to operate at pressures up to 100bar with a choice of carrier gases such as methane to simulate process application conditions.

The project also has significant potential for national metrology institutes themselves, as Dr Stephanie Bell from the NPL explained: 'Hydrocarbon dew point is a critical measurement for oil and gas industries, but not yet underpinned by practical measurement traceability to national standards. The present project will give NPL access for the first time to detailed results of a hydrocarbon dew-point realisation, and this will greatly inform our judgement of whether similar provision can be made at national standard level.'

Michell Instruments has been at the forefront of research work on humidity measurement technologies for decades, cooperating with the best research groups from renowned universities in UK and the world. More than 30 years ago Michell pioneered the EEC-funded development of the first European humidity transfer standard to create a humidity calibration service which would increase confidence and reliability throughout industry and research. Following this work and, with the gained expertise, Michell's own calibration laboratory became the world's first to have recognised accreditation for humidity calibrations.

Michell is also a pioneer in the field of hydrocarbon dew-point measurement, having worked with Shell Research to create the world's first commercially viable, fully automatic hydrocarbon dew-point analyzer in 1986. The result of this collaboration – the Condumax (currently Condumax II) – is still the most widely used hydrocarbon dew-point analyzer in the world.

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## **Notes**

### **About Michell Instruments**

[Michell Instruments Group is a worldwide leader in the field of moisture and humidity measurement solutions.](#) With four decades experience, Michell designs and manufactures a wide range of sensors, instruments and customized systems capable of measuring dew-point, humidity and oxygen in applications and industries as diverse as compressed air, power generation, petrochemical, oil and gas, food processing and pharmaceutical. Michell's innovative products make processes cheaper, cleaner, more energy efficient and safe.

The Group has multiple manufacturing locations across Europe with their international headquarters located in Ely, UK and a North America sales and service headquarters located in Rowley (MA). It has its own facilities in 10 countries with an extensive network of factory trained application and service engineers, subsidiaries and distributors stretching across 56 countries.

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