Dia-Stron enters into collaboration with KRÜSS on automation of surface tension measurements.

Dia-Stron and KRÜSS of Germany have collaborated in automation of sample loading and measurement of single fibres by combining the technology of the robotic sample loading system with the K100SF tensiometer.

Dia-Stron embarked on a program for automating fibre tensile testing back in 1991. At that time several customers impressed upon us their need to increase productivity over the then current manual methods, and so in 1992 we introduced our first automated tensile tester with the MTT600. This development was followed soon afterwards with dimensional measurements and then greater automation was added with the automated sample loading systems that now support our full range of fibre measurement modules.



K100SF with the Dia-Stron sample loading module.

The value of automation is well appreciated and is particularly valuable in areas where large numbers of samples require testing and extended protocol times are used. It was these factors that gave us the opportunity for a successful collaboration with KRÜSS.

KRÜSS GmbH of Hamburg are leaders in the measurement of surface and interfacial tension of liquids and solids through their K100 range of tensiometers. The single fibre version, the K100SF, is equipped with a high-precision balance with which the contact angle can be measured between a liquid and a single artificial or natural fiber. The LabDesk tensiometer software ensures a fully computer-controlled procedure for the individual measurements. However, changing the sample had to be carried out manually and each measurement had to be started individually.

This is where the collaboration with Dia-Stron has played an important role and the K100SF has been matched with a modified automated sample loading robot

(ALS1500), to give continuous sample measurement without user intervention. The user now has the option of loading up to 50 fibre samples in the cassette and leaving the instrument to complete testing without further intervention.



Measurement of single fibre contact angle.

For further information contact:

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Forthcoming meetings:

Dias-Stron will be exhibiting at the following meetings:

"New York Cosmetic Chemists Suppliers Day – 12th – 13th May 2009 at New Jersey Convention Centre, Edison, NJ"

"SAMPE – 18^{th} – 21^{st} May 2009 at the Baltimore Convention Centre, Baltimore, MD."