



NEWS RELEASE

Kinexus expert system rheometry promotes formulation success

17 November 2009: Malvern, UK: Manufacturers and materials professionals can now access an online article that describes the efficient application of performance-controlling design rules through the use of expert system rheometry. Using the 'rSpace' expert software in the innovative Kinexus rheometry platform from Malvern Instruments, the development and application of design rules is not only straightforward but allows a formulation or product microstructure to be engineered for optimal performance. The paper is entitled 'Expert system rheometry' and was published in September by materialstoday.com. It can be downloaded following a free registration procedure from: <http://www.materialstoday.com/view/4202/expert-system-rheometry>

Authored by Samiul Amin, Rheologist from the Novel Measurements Group at Malvern Instruments and Steve Carrington, Rheology Product Manager, the paper presents a more straightforward route towards engineering the next generation of complex and nanostructured fluids.

Inks, drilling fluids, shower gels and drug delivery vehicles are just a few examples of the many industrial and consumer products based on colloidal and nanostructured complex fluids. The successful formulation of these materials is promoted by understanding how rheological behaviour, which typically dictates performance, relates to underlying microstructure. However, this knowledge can be difficult to obtain for those without the necessary expertise. Drs Amin and Carrington explain how Malvern's Kinexus tackles this rheometry challenge head on. They also provide application examples to include the rheological characterisation of associative telechelic polymers typically used as structuring and thickening agents.

Kinexus is a unique rheometer from Malvern Instruments designed to meet rheology needs across a wide variety of research sectors, industries and application areas, for users at every level of experience. It enables precise analysis of the rheology of materials: from liquids to soft solids, processability to product performance, temperature to time dependence. A true applications-led interface brings 'expert system' guidance and SOP-driven processes to rheological measurement, while intelligent software invites users to work at the level most appropriate to them - to **solve** a problem with an application-led approach, **experiment** using established methodologies, or **design** tests from scratch. www.malvern.com/kinexus

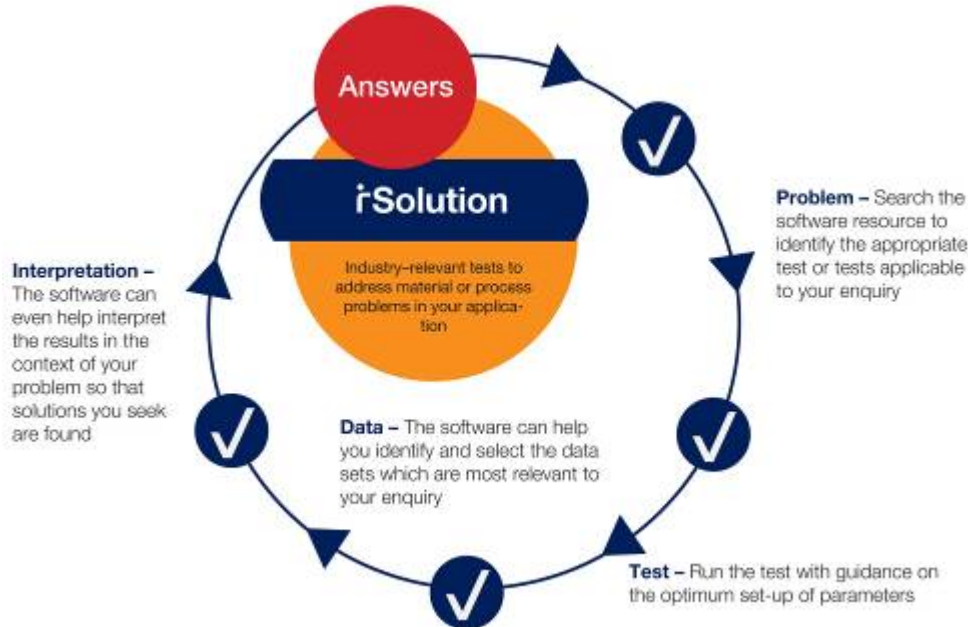
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Image, notes and contact details to follow...

High resolution image attached or available from Trish Appleton,
Kapler Communications trish@kapleronline.com Ref: MAL/JOB/1885

CAPTION: The 'expert system' approach to rheology provides insight into microstructural characterization of complex and nanostructured fluids



About Malvern Instruments

Malvern Instruments provides a range of complementary materials characterization tools that deliver inter-related measurements reflecting the complexities of particulates and disperse systems, nanomaterials and macromolecules. Analytical instruments from Malvern are used in the characterization of a wide variety of materials, from industrial bulk powders to nanomaterials and delicate macromolecules. A broad portfolio of innovative technologies is combined with intelligent, user-friendly software. These systems deliver industrially relevant data enabling our customers to make the connection between micro (such as particle size) and macro (bulk) material properties (rheology) and chemical composition (chemical imaging).

Particle size, particle shape, zeta potential, molecular weight, chemical composition and rheological properties measurements are now joined by advanced chromatography solutions (GPC/SEC), extending Malvern's technologies for protein molecular weight, size and aggregation measurements, and synthetic polymer molecular weight and distribution. The company's laboratory, at-line, on-line and in-line solutions are proven in sectors as diverse as cement production and pharmaceutical drug discovery.

Headquartered in Malvern, UK, Malvern Instruments has subsidiary organizations in all major European markets, North America, China, Korea and Japan, a joint venture in India, a global distributor network and applications laboratories around the world. www.malvern.com

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