



NEWS RELEASE

Malvern launches the Zetasizer μ V – just 2 microlitres required for biomolecule characterization using light scattering

October 2008: Malvern, UK: Malvern's new Zetasizer μ V is an advanced light scattering system specifically intended for the characterization of proteins and other biomolecules. This latest addition to Malvern's highly successful Zetasizer family, is designed and optimised for maximum sensitivity and minimum sample volume. The Zetasizer μ V is a dedicated system that supports improved understanding and management of a wide range of biomolecule applications, including: optimising sample and storage conditions; verifying the quaternary structure of protein complexes; identifying thermal characteristics; and assessing protein solubility and sample purity.

The amount of protein available, particularly during early stages of discovery is often very limited, so the ability to measure very small quantities is critical. The Zetasizer μ V requires just two microlitres of sample, allowing measurement of as little as 40 picograms of BSA (bovine serum albumin) for example – an industry leading specification. Sample is recoverable, ensuring no loss of valuable material. The use of SOP's (standard Operating procedures) means that the measurements proceed with no user input and are managed and supported by the proven software used throughout the Zetasizer range.

The Zetasizer μ V employs both dynamic (DLS) and static light scattering (SLS). DLS determines the diffusion speed of proteins and nanoparticles in solution to give accurate measurement of size and size distribution. SLS enables determination of absolute molecular weight and 2nd virial coefficient, a parameter used to assess protein solubility and suitable conditions for crystallisation.

However, the real value of the Zetasizer μ V lies in using the measured properties to help solve application problems. In bioprocessing, for example, it can be used to investigate the effects of changing environmental factors on the monomeric or oligomeric state of a protein. In drug target development, dynamic and static light scattering in combination can help in optimising crystallization conditions, speeding up the development process. In protein therapeutics, where the presence of aggregates can cause adverse effects, DLS provides an extremely sensitive method for aggregate detection, improving the success of a purification procedure or providing a tool for monitoring the early stages of instability.

For further details and to find out about Malvern's complete range of systems for biomolecule characterization visit: www.malvern.com/zetasizerMicroV

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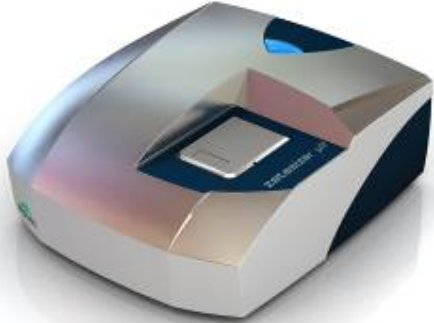
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Image, notes and contact details to follow...

**Malvern launches the Zetasizer μ V –
just 2 microlitres required for biomolecule characterization using light scattering.../2**

High resolution image attached or available from Trish Appleton,
Kapler Communications trish@kapleronline.com Ref: MAL/JOB/1625

CAPTION: The new Zetasizer μ V



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 the latest 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 distribution, particle shape information, zeta potential, molecular weight, chemical composition, and bulk materials properties can all be determined with instruments from the Malvern range. 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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