

## NEWS RELEASE

### Image analyzer from Malvern offers reference technique for sizing HPLC column materials

**28 July 2009: Malvern, UK:** Malvern Instruments has published work demonstrating how the Sysmex FPIA-3000 image analysis-based particle characterization system provides a reference method for validating particle size measurements of the porous silica materials used in high performance liquid chromatography (HPLC) columns. An application note detailing this is available on the Malvern website: <http://www.malvern.com/ESZ>

Particle size of column materials is critical in both preparative and analytical HPLC. The majority of applications require particles between 3 and 30  $\mu\text{m}$ , but the high porosity of the silica particles presents a challenge for size measurement. Electrical sensing zone (ESZ) is the established method, and is reliable provided the instrument is mass calibrated to compensate for the porosity of the particles.

Characterizing silica particles using automated image analysis provides confirmation of the mass calibration supporting ESZ measurements, while delivering further additional imaging data on the particles under observation.

Visit <http://www.malvern.com/ESZ> for more information.

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**Text Ends**

High resolution image attached or available from Trish Appleton,  
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**CAPTION: The Sysmex FPIA-3000 from Malvern Instruments**



**Notes and contact details follow...**

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### **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](http://www.malvern.com)

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