

FOR IMMEDIATE RELEASE

## Hitachi High-Tech Introduces Real View® Polarized Micro Sample Observation Unit for NEXTA® DSC Series, Advancing High-Precision Structural Analysis



Real View® Polarized Micro Sample Observation Unit

**Tokyo, February 7, 2024** – Hitachi High-Tech Science Corporation ("Hitachi High-Tech Science"), has launched a polarization microscope accessory compatible with the NEXTA® DSC Series of thermal analyzers.

Used in diverse fields for thermal analysis, including polymers, pharma, electronics, chemical, academia, oil and gas, food, and metals, the NEXTA® DSC measures heat flow for material characterization. It provides thermal properties such as melting point, glass transition, and crystallization.

In industries and research facilities developing high-performance materials, Hitachi's Real View® polarization microscope for NEXTA® DSC optional accessory offers versatility, extending to applications like sample crystal orientation, quality control of multilayer films, and failure analysis.

### Enhanced Microscopic Analysis

The Real View® Polarized Micro Sample Observation Unit for NEXTA® DSC is equipped with a 20-megapixel high-resolution camera, providing a 10-fold increase in resolution and a 50-fold digital zoom compared to the standard Real View® camera system. Additionally, controllable polarization technology enhances the contrast in the image, allowing operators to explore the directional dependence – known as anisotropy – of the sample.

The camera unit has a dedicated image processing function specifically designed for polarization observation. The system seamlessly performs layer-by-layer melting point analysis of multi-layer films, using a straightforward operation akin to the NEXTA® DSC series.

These features facilitate high-precision structural analysis of various materials, enabling clear observation of small areas, including abnormalities in multi-layer film quality.

Shinya Nishimura, Product Manager for thermal analyzers at Hitachi High-Tech Science, stated, "*Polarized Micro Sample Observation Unit enables thermal analysis of micro areas using a uniquely developed image processing function. This product provides innovative applications and solutions for the R&D and QA/QC markets.*"

Olivier Savard, Product Manager for thermal analyzers at Hitachi High-Tech Analytical Science Ltd., stated, "*The Real View® Polarization Microscope for NEXTA® DSC Series introduces an innovative approach to high-precision structural analysis, expanding the capabilities of differential scanning calorimeters for companies and research laboratories who need to enhanced material characterization.*"

\*"NEXTA" and "Real View" are registered trademarks of Hitachi High-Tech Science in Japan, the United States, the EU, and other countries.

#### **Website for Real View® Polarized Micro Sample Observation Unit**

<https://www.hitachi-hightech.com/global/en/products/analytical-systems/thermal-analysis/options/pmrv.html>

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#### **About Hitachi High-Tech Corporation**

Hitachi High-Tech Corporation, headquartered in Tokyo, Japan, is engaged in activities in a broad range of fields, including manufacture and sales of clinical analyzers, biotechnology products, and analytical instruments, semiconductor manufacturing equipment and analysis equipment and providing high value-added solutions in fields of social & industrial infrastructures and mobility, etc.

The company's consolidated revenues for FY 2022 were approx. JPY 674.2 billion. For further information, visit <https://www.hitachi-hightech.com/global/en/>

#### **About Hitachi High-Tech Science**

Hitachi High-Tech Science, headquartered in Tokyo, Japan, is a subsidiary wholly owned by Hitachi High-Tech Corporation. The company develops, manufactures and sells wide range of analytical instruments, supporting research, development, and quality management in a wide range of fields.

#### **About Hitachi High-Tech Analytical Science Ltd.**

Headquartered in Oxford, UK, as part of the Hitachi High-Tech Group, Hitachi High-Tech Analytical Science specializes in a wide range of connected materials analysis products and services for use in the lab or in-field around the world.

We operate globally with centers worldwide, offering assembly, sales and support services to customers across Asia, America and EMEA.

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