Hitachi High-Tech HITACHI

Hitachi High-Technologies Corporation
24-14,Nishi-shimbashi 1-chome,Minato-ku,Tokyo 105-8717,JAPAN

November 6, 2009

Notice of Patent Infringement Lawsuit Against FEI Japan

On November 6, 2009, Hitachi High-Technologies Corporation filed suit against FEI Japan in the Tokyo District Court, charging infringement related to several patents held by Hitachi High-Technologies, including the micro-sampling technology used in the Company's focused ion beam systems.

In its lawsuit, Hitachi High-Technologies is requesting an order to halt the production and sales of the infringing products in Japan.

Hitachi High-Technologies has engaged in a series of negotiations with FEI Company of the United States regarding the use of patents pertaining to its micro-sampling technology. However, given the gap in recognition of the issues between the two companies, Hitachi High-Technologies has concluded that it will be virtually impossible to reach a resolution via negotiation. Micro-sampling is a proprietary technology of Hitachi High-Technologies, considered a useful technology critical to focused ion beam systems. This technology won the Japan Society for Precision Engineering (JSPE) "Technology Award" in fiscal 2001.

These circumstances left Hitachi High-Technologies with little option other than to file suit against FEI Japan in court. Hitachi High-Technologies views intellectual property as an extremely important management resource, and takes an aggressive approach to filing strategic patents applications. Hitachi High-Technologies was named a recipient of the "Minister of Economy, Trade and Industry's Commendation (Outstanding Patent Strategy Company)" as part of the fiscal 2009 "Excellence in Intellectual Property Awards" granted by the Japan Patent Office, Ministry of Economy, Trade and Industry, because these activities had been evaluated.

Going forward, Hitachi High-Technologies remains committed to resolute action to address any cases of infringement of its intellectual property rights.

(Notes)

*Micro-sampling technology

Micro-sampling technology method was developed as a tool for analyzing semiconductor devices which are moving rapidly toward smaller scales. Please see the accompanied sheets for details.

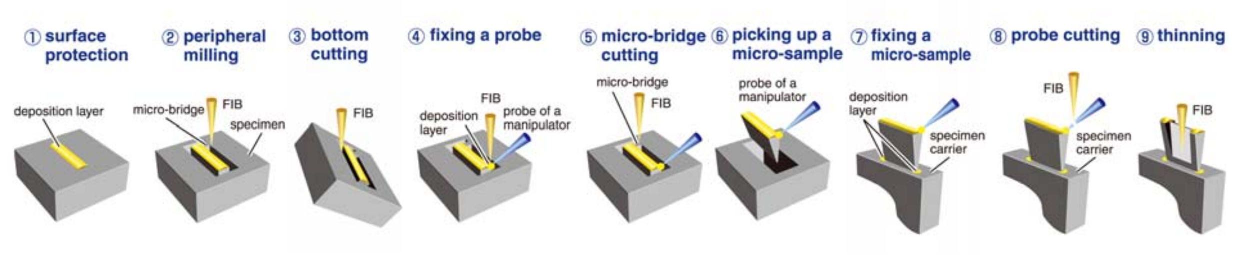
*The Japan Society for Precision Engineering(JSPE) "Technology Award" is an award for researchers and engineers who have achieved high honors for their efforts and expected future contributions in the field of precision engineering.

*Please see our news release on April 7, 2009 on "Intellectual Property Awards" for details.
http://www.hitachi-hitec.com/global/whatsnew/2009/20090407.pdf

For further information contact
Hitachi High-Technologies Corporation
Public & Investor Relations Group
Tel: +81-3-3504-3258

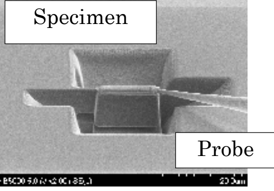
Hitachi High-Tech Micro-sampling System

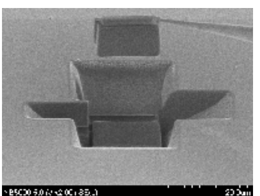
Micro-sampling allows high-throughput analysis using TEM/STEM: site-specific sample preparation with better than 100 nm accuracy can be achieved within an hour.

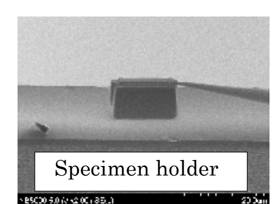


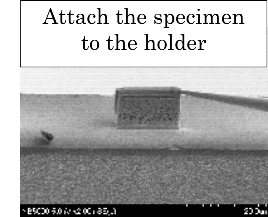
Newly designed sample probe mechanism provides less vibration for improved reliability and easy sample preparation with SEM.

SEM imaging enables step-by-step monitoring of sample processing

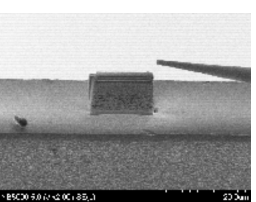


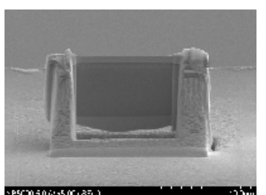


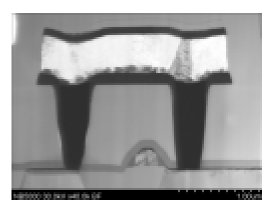


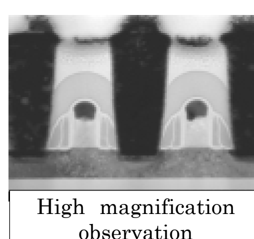


Real-time SEM imaging allows high precision end-point-detection during thinning process

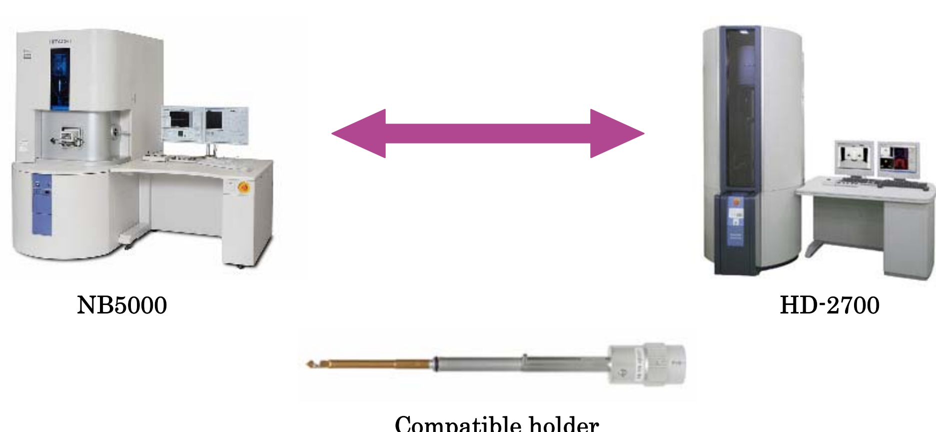








Holder linkage with compatible holder allows high-resolution imaging and analysis on other STEM/TEM microscopes.



NB5000

HD-2700

Compatible holder

※ Micro-sampling is protected by more than 30 patents that are registered either in Japan or in United States.

The advantages of Micro-sampling

-Site-specific sample preparation for TEM/STEM specimens

-High throughput; only 15 minutes in case of a sample of 18 μm width x 5 μm depth x 10 μm height from silicon substrate

-Simple and quick probe exchange via load lock system

History of Hitachi High-Tech FIB system with Micro-sampling

1991 TEM specimen preparation from Semiconductor laser device using FIB was demonstrated.
J. Szot, R. Hornsey, T. Ohnishi and S. Minagawa J.Vac.Sci.Technol. B10, 575

1994 Focused Ion Beam System FB-2000 with FIB/TEM compatible holder was released. (first in the world)
T. Ishitani, H. Tsuboi, T. Yaguchi and H. Koike J. Electron Microsc 43, 322,

1996 FB-2000A was released.

1999 Micro-sampling system was on the market. (first in the world)
T. Ohnishi, H. Koike, T. Ishitani, S. Tomimatsu, K. Umemura and T. Kamino, Proc. from the 25th. Inter. Symp. for Test. and Failure Analys., 449

2001 21st JSPE Technology award for the Development of "Micro -sampling technique" for Transmission Electron Microscope

2002 40kV Focused Ion Beam System FB-2100 released.

2007 Focused Ion & Electron Beam System NB5000 was released.

2009 Focused Ion Beam System FB2200 was released.

Intellectual Property

Micro-sampling is protected by more than 30 patents that are registered either in Japan or in United States.

[Fundamental Principle]
JP2774884, USP5,270,552

[System construction and practical method]
JP3547143, JP3613039, JP3633325, JP3677968, JP3709886, JP3805547, JP3843637, JP4016981, JP4048210, JP4100450, JP4177860, JP4185961, JP4185962, USP6,538,254, USP7,138,628, USP7,525,108

[SEM/STEM function]
JP3874011, JP3897271, JP3904018, JP3904019, JP3904020, JP3941816, JP4090567, USP7,205,554, USP7,550,750

[Compatible holder and holder linkage]
JP2842083, JP3383574, JP4185963, JP4194529, USP6,828,566, USP7,397,052

[Load lock system for probe exchange]]
JP3652144, JP3771926, JP3851464, JP3851640, JP4300211

[Trademark]
Japanese Registered Trademark 4399203, Japanese Registered Trademark 4401176

●For further information, please contact your nearest sales representative.

Hitachi High-Technologies Corporation

24-14 Nishi-Shimbashi 1-chome, Minato-ku, Tokyo, 105-8717, Japan

URL http://www.hitachi-hitec.com/em/fib/fibmicro.html

※ This catalog shows the status on Oct. 2009. The intellectual property can be amended.