



ASM International N.V.

ASM INTERNATIONAL N.V. INTRODUCES ENABLING PROCESS FOR ULTRA LOW-K

Bilthoven, the Netherlands, November 1, 2004 ... ASM International N.V. (NASDAQ: ASMI and Euronext Amsterdam: ASM) announced today the introduction of a breakthrough process, available on ASM's established Eagle® PECVD system, that enables the integration of next generation, porous low-k insulator materials in copper interconnect on semiconductor chips. The unique Plasma BCB Polymerization Technology was developed jointly with one of the major semiconductor device manufacturers. It has already been proven as a "Pore Sealing Process" and is targeted for implementation in the 65 nm manufacturing process. In addition to ASM's Aurora® Ultra Low-k (ULK) material, the Plasma BCB Deposition Process will work on most other industry-developed low-k PECVD dielectrics and an-organic spin-on dielectrics.

The use of low-k materials, such as ASM's Aurora® low-k, in place of silicon oxide as the insulating material between wires in semiconductors, has increased the speed and decreased power consumption of electrical signals traveling through copper wires in integrated circuits. Although many suppliers have developed next-generation ULK materials, these advanced materials have not yet been successfully integrated in high volume manufacturing because of their porosity. With the introduction of this novel Plasma BCB Deposition Process, which deposits a sealing layer with a chemical used commonly in the packaging process in the semiconductor industry, ASM now offers a solution to integrate such porous ULK materials. This novel BCB Plasma Deposition Process enables further processing through metal deposition and chemical mechanical polishing (CMP).

"Developed on ASM's Eagle® PECVD system, the Plasma BCB Deposition Process has demonstrated excellent controllability in the ultra-thin film regime. Due to the particular properties of the BCB molecule, the dielectric constant of the ULK material remains low", stated Ivo Raaijmakers, Chief Technology Officer and Director of R&D of ASM's front-end operations.



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“This allows us to integrate ULK materials at trench level very effectively, forming a more reliable inter-connect structure with these porous ULK materials,” added Tomimori Yoshida, Business Unit Manager of ASM’s PECVD product lines. “Customer demonstrations on 300mm wafers will be available from this quarter, and we are expecting five shipments in 2005 to major semiconductor device manufactures”, he continued.

About ASM

With headquarters in Bilthoven, the Netherlands, ASM International N.V., and its subsidiaries design and manufacture equipment and materials used to produce semiconductor devices. ASM International and its subsidiaries provide production solutions for wafer processing (Front-end segment) as well as assembly and packaging (Back-end segment) through facilities in the United States, Europe, Japan and Asia. ASM International's common stock trades on NASDAQ (symbol ASMI) and the Euronext Amsterdam Stock Exchange (symbol ASM). For more information, visit ASM's website at <http://www.asm.com>.

Safe Harbor Statement under the U.S. Private Securities Litigation Reform Act of 1995: All matters discussed in this statement, except for any historical data, are forward-looking statements. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. These include, but are not limited to, economic conditions and trends in the semiconductor industry, currency fluctuations, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholder and other issues, commercial and economic disruption due to terrorist activity, armed conflict or political instability and other risks indicated in the Company's filings from time to time with the U.S. Securities and Exchange Commission, including, but not limited to, the Company's report on Form 20-F for the year ended December 31, 2003 and Forms 6-K as filed.

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