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**FOR IMMEDIATE RELEASE**

**SYNOVA TEAMS WITH FRAUNHOFER ISE AND PHOTOVOLTAIC  
MANUFACTURING LEADERS IN EUROPEAN SOLAR RESEARCH ALLIANCE**

***Laser MicroJet to Be Used for Improving Solar Cell Efficiency and Reducing Overall Cost Per Unit***

LAUSANNE, Switzerland, Feb. 25, 2008—Synova, the world pioneer and patent holder of water jet-guided laser technology, today announced it has joined a research alliance led by Europe's largest solar research organization, the Fraunhofer Institute for Solar Energy Systems (ISE), to explore new manufacturing methods that will both speed processing and improve performance of solar cells. Comprising industry leaders whose offerings span the photovoltaic (PV) manufacturing spectrum—from raw materials to finished cells—the alliance is investigating the use of Synova's Laser MicroJet® (LMJ) technology with liquids other than pure water to prove LMJ's viability for wafering and microstructuring applications. Specifically, the alliance is exploring LMJ for laser chemical processing (LCP), an approach that extends beyond laser chemical etching to other processes, first published by ISE in 2001 at the European Photovoltaic Solar Energy Conference (EUPVSEC) in Munich.

Through this concerted research effort, the alliance members expect to produce a superior alternative to conventional lasers, chemical processes, diamond blade saws and multi-wire slurry saws, aimed to increase solar cell efficiency while lowering overall cell cost. While conventional lasers have yielded the most promising results for these processes to date, Synova's LMJ—a proven entity in the IC market due to its manufacturing and end-device performance advantages—can take these benefits even further. Its “wet” approach offers improved cell integrity by eliminating heat and silicon surface damage, as well as contamination from the process debris associated with “dry” lasers. Given LMJ's advantages coupled with the use of chemicals, the alliance is examining LCP's ability to address a host of PV wafering and microstructuring techniques—grooving, cutting, slicing, doping, etching, isolation and via drilling, to name a few.

Dr. Daniel Kray, head of group, Micro-patterning and Laser-chemical Technologies within Fraunhofer ISE's Silicon Solar Cells Department, commented, “The solar industry is evolving rapidly, as are the manufacturing technologies that will enable its continued growth. The Institute is committed to effecting progress in this field, and is leveraging Synova's Laser MicroJet to discover further applications that will help drive continued adoption of solar energy around the world.”

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“Teaming with this renowned research institute and the other PV manufacturing leaders will enable Synova to join a collective brain trust that’s unmatched in the industry,” noted Synova CEO Bernold Richerzhagen. “We’re excited by the prospect of exploring new opportunities to extend Laser MicroJet’s capability beyond the progress it has already brought to solar-cell production. Synova is deeply committed to pushing LMJ as far as it can go for the alternative energy space as well as other industries, and we warmly embrace strategic alliances like this to drive technology innovation and adoption.”

The research alliance is in part a follow-on to the [preliminary study](#) the Institute released in July 2007 on solar-cell edge isolation. After initial collaborative work on applications for the LMJ in the PV industry in 2002, the Institute acquired a Synova tool, the Laser Cutting System (LCS) 300, the following year. The alliance’s efforts began to intensify in early 2007, and research is expected to continue through Q1 2009. In supporting the alliance’s research, the Institute will install another LMJ machine for this project to be shipped in March.

This collaboration also expands on Synova’s other efforts in the PV market. Last April, the company announced a licensing partnership with leading systems and components supplier Manz Automation that is solely dedicated to developing cost-effective manufacturing equipment for mono- and multi-crystalline solar cells. Following this, the Synova-Manz partnership unveiled an inline laser edge isolation system—the ILE 2400—at the 22<sup>nd</sup> EUPVSEC in Milan, Italy. Manz will begin accepting orders for this system by June this year.

#### **About Fraunhofer Institute for Solar Energy Systems (ISE)**

With a staff of approximately 500, Fraunhofer ISE is the largest solar energy research institute in Europe. The work at the Institute ranges from the investigation of scientific and technological fundamentals for solar energy applications, through the development of production technology and prototypes, to the construction of demonstration systems. The Institute plans, advises and provides know-how and technical facilities and services. The Institute is a member of the Fraunhofer-Gesellschaft, the leading organisation for applied research in Germany, with about 12,500 employees in 80 research establishments. Additional information about the Institute is available on the Internet at [www.ise.fhg.de](http://www.ise.fhg.de)

#### **About Synova**

Founded in 1997, Synova is the world pioneer and patent holder of Laser MicroJet<sup>®</sup>, a state-of-the-art water jet-guided laser technology that combines the advantages of a laser beam and water to address the exacting manufacturing specifications and low cost-of-ownership (CoO) requirements associated with volume production of semiconductors, flat-panel displays, photovoltaics, medical instrumentation and automotive devices. Thanks to this innovative technology, Synova is revolutionizing the engineering playing field and fast emerging as the ideal provider for high-precision laser applications in these core markets. Additionally, Synova is satisfying growing demand across diverse markets through strategic licensing partnerships with original equipment manufacturers (OEMs), end users and R&D institutes. Headquartered in Lausanne, Switzerland, Synova is a privately held company with subsidiaries located in China, South Korea, Japan and the United States. Additional information about the company is available on the Internet at [www.synova.ch](http://www.synova.ch)

*Laser MicroJet is a registered trademark of Synova.*

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