



Press Release

10th December 2007

SPI Lasers

("SPI" or "the Company")

Solar Shines Brightly for SPI Lasers

10th December 2007, Southampton, United Kingdom, SPI Lasers, a leading designer and manufacturer of fiber lasers, today announced that the solar energy market is becoming a significant sector for the use of its fiber lasers. Having only discovered that fiber lasers were a good match for elements of the solar industry in the summer of 2007, SPI Lasers have to date identified various aspects of the Solar Energy industry, such as scribing of thin films, edge isolation, silicon drilling and cutting of crystalline silicon solar cells which are making a high impact in the Solar Energy Market and are requesting solar manufacturers to come forward to test these and other uses for the fiber laser.

SPI Lasers has identified the Solar Energy market as a significant untapped opportunity for its fiber lasers. The solar industry is currently experiencing significant growth in size, geographic expansion and technology proliferation. Technical evaluations have revealed that SPI's pulsed fiber laser can be used in a number of key applications for the manufacture of solar cells.

"Since entering the sector only 6 months ago, SPI has already gained more than five new solar customers" said John Tinson, VP of Sales for SPI Lasers. He continued "and many more are currently evaluating SPI's lasers".

The types of uses for the lasers can be varied. SPI see a lot of emphasis going into thin film technologies where the use of lasers for selective fine scribing of thin films is a growing application area. Thin films of materials such as molybdenum, ITO and TCO typically in the order of a few microns thick on glass substrates are used and need to be scribed. SPI's pulsed lasers are ideal for this application as their high repetition rates allow for sufficient pulse overlap at high processing speeds. "Many of these materials only require low pulse energies to remove the layer without damaging the substrate and can benefit from the lasers' ability to operate at pulse frequencies up to 500kHz" said Jack Gabzdyl of SPI Lasers.

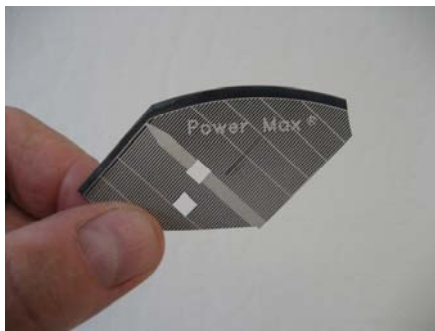
Within silicon solar cell technology there are also a number of target applications including edge isolation and silicon cell cutting. Conventional q-switched lasers are used for crystalline silicon edge isolation but can suffer from high levels of debris and micro cracking. Initial trials with SPI's pulsed fiber laser have shown that using high pulse frequencies result in significant improvements in scribe quality. "Using low pulse energy short pulses give enhanced control of the heat input into the process and helps reduce debris and minimise the thermal damage" said Dr Tony Hoult, Manager of SPI's Applications Lab.

SPI have also developed a proprietary silicon cutting process that is well suited for cutting of crystalline silicon solar cells. Cutting speeds in excess of 6m/min can be achieved with just 200W with smooth cut edges. The process can be used to cut shapes, which is seen as a limitation of conventional saw or scribe and break techniques.

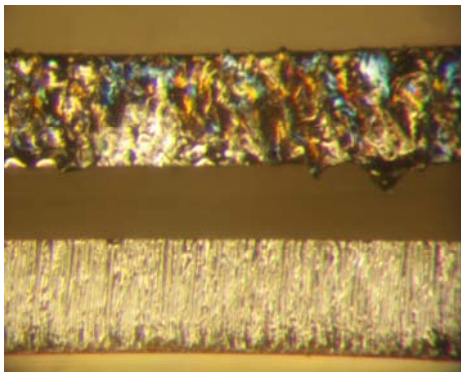
Lasers are making a major impact in manufacturing solar cells. A number of other applications such as welding, soldering, drilling and edge deletion are all being developed for the solar market within SPI's applications laboratory with fiber laser solutions.

SPI are certain that they have not yet uncovered all the potential uses for lasers within the solar industry and are requesting companies to come forward to test samples in the Applications Lab. This is a free of charge, proof of principle concept that is the fast track way to conduct application trials. In addition, SPI offer a try before you buy program and SPI provides a progressive program to support academic & not for profit research centres.

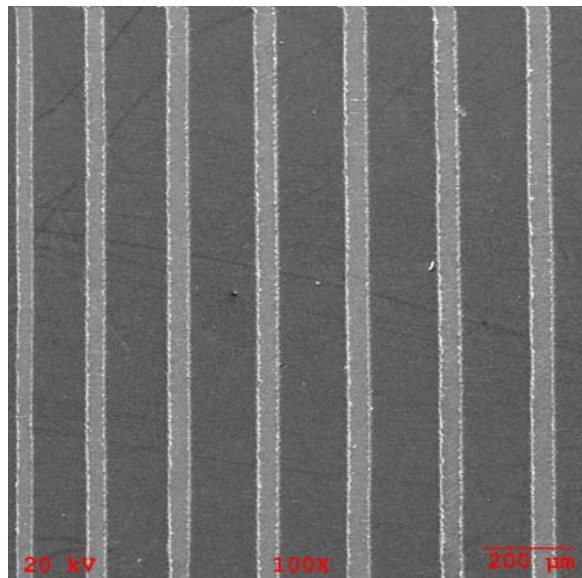
Both the proof of concept and try before you buy programs mentioned here can be found by clicking on the SPI web site at www.spilasers.com and registering your details.



Silicon Cutting of Solar Cells



**Top Cut: Using a Pulsed YAG Laser
Bottom Cut: Using an SPI Fiber Laser**



**Recent process development for
thin film cells
Molybdenum thin film ablation**

- Ends -

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Notes to Editors:

SPI Lasers is a leading designer and manufacturer of optical fiber-based lasers that are currently used in a wide range of industries. The current product family is used to mark, weld, and cut materials used in the manufacture of a range of products.

The platform technology being developed to raise laser power levels for use in the macro manufacturing sectors is expected further to widen the markets served by SPI Lasers to include aerospace, automotive and white goods manufacture.

Among new markets in prospect, as higher-power lasers are deployed, is defence, and SPI Lasers is currently involved in this sector through contracted development work with a number of companies and government agencies.

SPI Lasers has a strong network of international distributors. In Europe the international distributor is BFI Optilas, one of the region's largest distributors of specialist products in the electronics and photonics markets. Outside Europe, SPI Lasers' products are distributed on an exclusive basis in China, India, Japan, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

Founded in 2000 on technology developed by the University of Southampton's Optoelectronics Research Centre, the business is headquartered in Southampton, United Kingdom.

www.spilasers.com