Press release of EdgeWave GmbH for Photonics West 2007 in San Jose, November 2006

The new INNOSLAB laser with tailored beam profiles will be presented at Photonics West 2007, San Jose, CA, booth #1801E

Wuerselen, Germany, November 1, 2006 – EdgeWave GmbH has introduced new INNOSLAB lasers for industrial and scientific applications. The new INNOSLAB lasers are highly flexible in beam profile, from circular Gaussian beam profile, through line shaped one dimensional Top-Hat, to two dimensional Top-Hat with square cross section, together with the outstanding features of the INNOSLAB design: high beam quality $M^2 < 2$, short pulse length (as short as 4ns) at high pulse repetition rate (up to100 kHz), high pulse energy (up to 30mJ) and high average power (up to 200W). The new INNOSLAB lasers are ideal choice for mostly diversified applications.

INNOSLAB lasers with Gaussian beam profile are well suited for precision machining micro features in all types of materials, because their short pulse length results in a minimal heat-affected zone. Typical applications include marking, cleaning and polishing, solar cell processing, mould tool manufacturing, wafer scribing and high throughput subsurface engraving.

Frequency doubled and tripled INNOSLAB lasers with line shaped one dimensional Top-Hat are ideal choice for pumping of dye lasers. Powered by a frequency doubled INNOSLAB laser with 10mJ and 8ns at 2kHz, a frequency doubled dye laser delivers 250µJ at 283nm for high speed laser induced fluorescence (LIF) of OH^- radicals in a combustion process.

INNOSLAB lasers with Top-Hat beam profile are especially favourable for structuring and ablation of conduction layers or dielectric layers for production of thin film solar cells, crystalline solar cells and flat display panels, etc. Their Top-Hat beam profile and short pulse length guarantee homogeneous ablation without beam overlap, highly efficient use of pulse energy and low thermal damage of substrates.

As with all INNOSLAB laser product families, the new INNOSLAB lasers adapt the proved design with rugged construction and sealed laser heads. They are superior stable and reliable and offers low cost of ownership. Their high flexibility in beam profile enables customized laser solutions based on our standard proved system technology and design, tailored to the customer´s specific requirements.

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