

GaAs Based High Power Laser Diodes from Lumics

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The Lumics GmbH, based in Berlin, Germany is specialized in laser module components. The product range includes laser diodes and fiber coupled devices in various designs for the use in optical communication networks, analytical instruments and industrial laser applications. It is specialized in development and production of laser devices in the infra-red range from 800nm to 1080nm wavelength.

Lumics was founded in 2000 as a spin-off from the Max-Planck-Institute for solid state research in Stuttgart. The company has invented and utilizes a manufacturing process which includes a proprietary facet passivation technique for high power laser diodes.

Separate confinement InGaAs /AlGaAs quantum well structures are used in the very reliable devices. Doping and composition profiles are optimized for electrical and thermal resistance in order to achieve most efficient operation.

The presentation will include an overview on company founding, VC-financing and business development. Design, performance and applications of laser diodes with operating power levels up to 700mW for single mode and up to 8W for 100 μ m broad area emitters are presented.