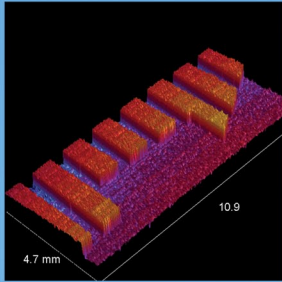

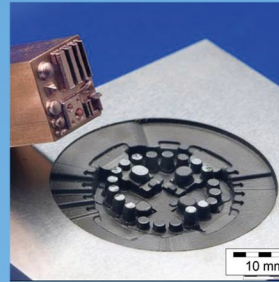


Application Examples of INNOSLAB Lasers



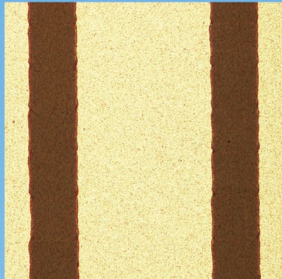
Structuring of Si-Wafer

Wave length: 532nm
 Beam profile: 
 Pulse energy: 1mJ
 Rep rate: 50kHz
 Energy density: 7J/cm²
 Area rate: 7,2cm²/sec



Rapid Tooling

Wave length: 1064nm
 Beam profile: 
 Pulse length: nsec or psec
 Rep rate: 100kHz to 1MHz
 Volume rate: 1mm³/sec




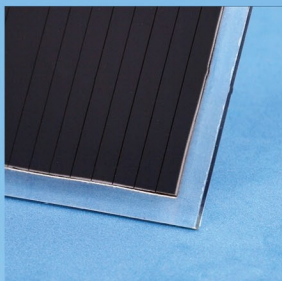
Scribing of Thin Film Solar

Wave length: 532nm
 Beam profile: 
 Pulse energy: 10μJ
 Rep rate: 50kHz
 Energy density: 0,28J/cm²
 Linear speed: 2,6m/sec




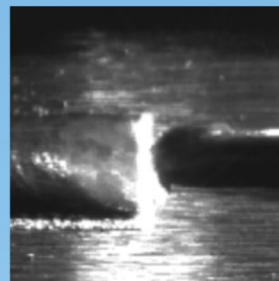
Subsurface Marking

Wave length: 532nm
 Beam profile: 
 Pulse length: 6nsec
 Pulse energy: 0,5mJ
 Point per sec: 20.000

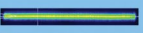


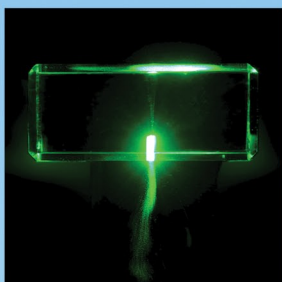
Edge Deletion of Thin Film Solar

Wave length: 1064nm
 Beam profile: 
 Pulse energy: 7mJ
 Rep rate: 50kHz
 Energy density: 7J/cm²
 Area: 50cm²/sec




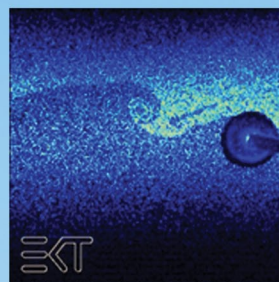
Flux Free Soldering

Wave length: 1064nm
 Beam profile: 
 Pulse length: 8nsec
 Pulse energy: 4mJ
 Rep rate: 5kHz
 Linear speed: 1m/min




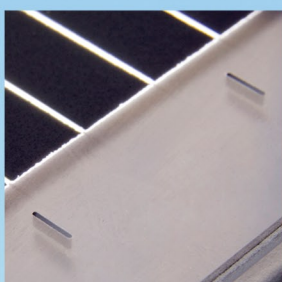
Drilling of Glass

Wave length: 532nm
 Beam profile: 
 Pulse energy: 0,4mJ
 Rep rate: 100kHz
 Pulse length: 9ns
 Volume rate: 2mm³/sec



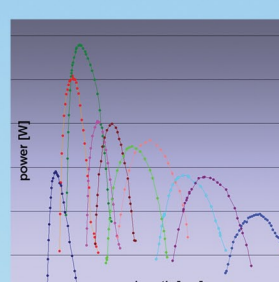
Particle Imaging Velocimetry

Configuration: dual oscillator
 Wave length: 532nm
 Beam profile: 
 Aerosol seeding
 Frame rate: 2 x 10.000fps




Electrode Slots in Glass

Wave length: 532nm
 Beam profile: 
 Pulse energy: 0,4mJ
 Rep rate: 50kHz
 Slot size: 2mm x 4mm
 Cycle time (2 slots): 10sec




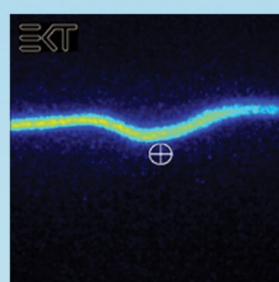
Pumping Dye Lasers

Wave length: 532nm or 355nm
 Beam profile: 
 Pulse energy: 8mJ
 Pulse length: 7ns
 Rep rate: 10kHz
 Tuning range: 539 – 767nm



Cutting of Glass

Wave length: 532nm
 Beam profile: 
 Pulse energy: 0,4mJ
 Rep rate: 100kHz
 Thickness of glass: 1mm
 Cutting speed: 8mm/sec



High Speed OH-LIF

Excitation: 283nm
 Emission: 308nm
 UV pulse energy: 22μJ
 Rep rate: 5kHz
 Frames speed: 5.000fps