7/2017

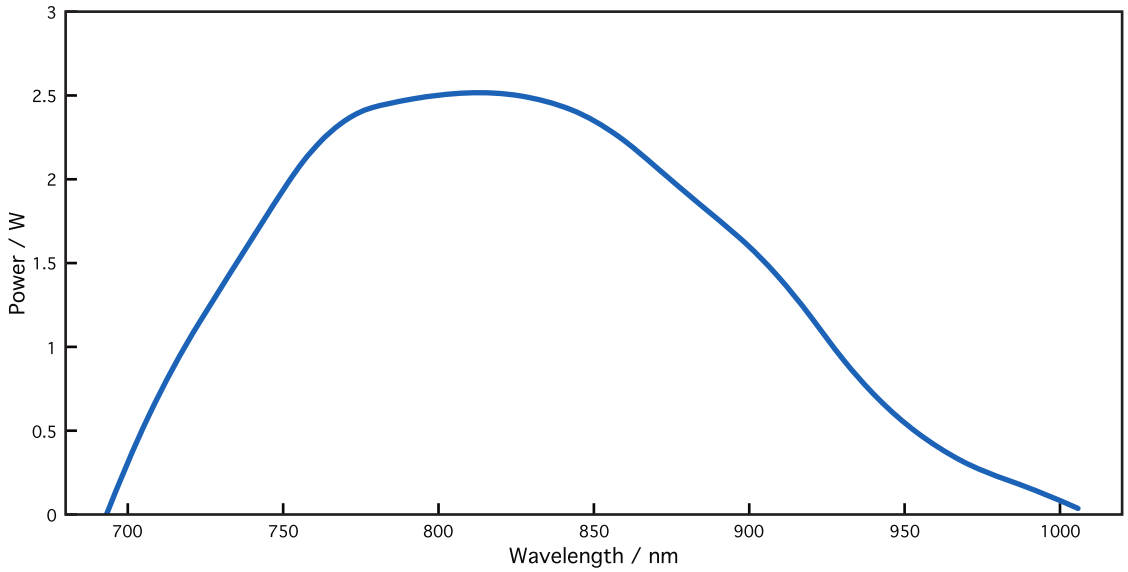
Credo Ti:Sa Laser

High Repetition Rate Credo Ti:Sa-Laser

The compact solid-state high repetition rate Credo Titanium:Sapphire-Laser is designed for applications where a wide tuning range and high pulse intensity with narrow linewidth is needed. Typical applications are atmospheric research, combustion research, material science, semiconductor technology, and environmental analysis.

The Credo Ti:Sa is pumped by an Empower 30 with adjustable pulse repetition rates between 1 and 10 kHz at 527 nm, pulse durations approximately 120 ns. The long pump pulse duration will result in more than one pulse from the Credo Ti:sa. Therefore, the Credo Ti:Sa cavity can use a Pockel's cell, which is used to generate a single powerful pulse.

Energy Output



General Characteristics

Tuning Range	690 .. 1010 nm
Pulse Duration	approx. 30 ns
Repetition Rate	1 .. 3 kHz
Output Power	2.5 W (at peak wavelength)
Beam Size	1 mm (typical)
Linewidth	< 0.2 cm^{-1}

Requirements

Pump Laser	Empower 30 (please contact Sirah for other pump lasers)
Ambient Conditions	constant temperature in the 20 .. 25°C range
Cooling Water	Water required for crystal (< 20 W)
Laboratory	dust-free air (flow box)
Voltage	110 .. 230 V, single phase, 50 / 60 Hz
Computer Control	XP / Vista / Windows 7 / Windows 8 / Windows 10 (32 & 64 bit), USB Port

Options

Pockel's cell for single pulse generation
Internal open loop frequency doubling

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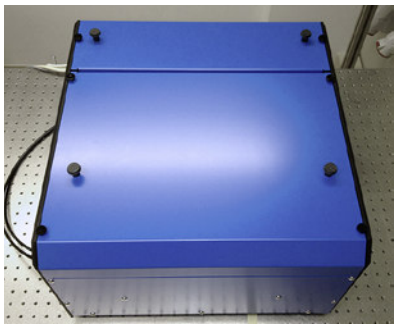
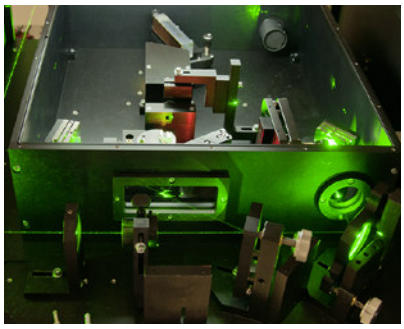
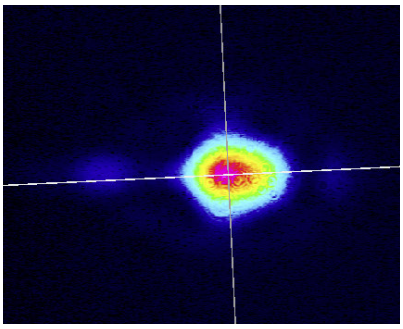
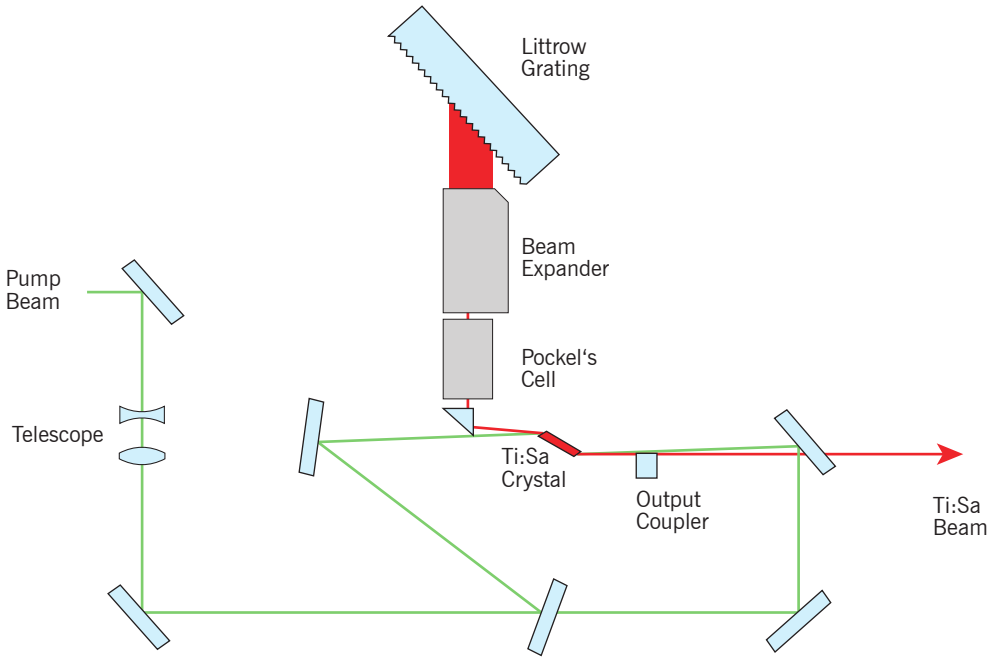


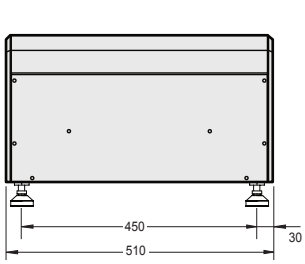




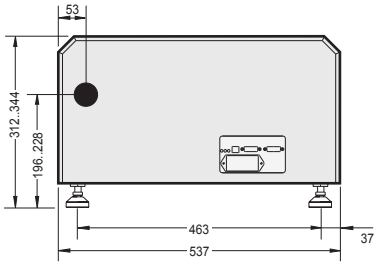
Optical Layout



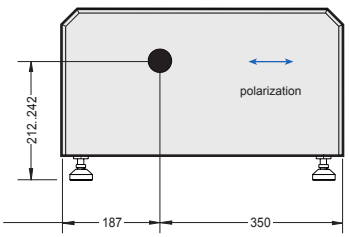
Dimensions



Credo Ti:Sa (side view)

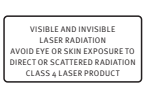


Credo Ti:Sa (pump laser input end)



Credo Ti:Sa (dye laser output end)

All Dimensions in mm
Specifications are subject to change without notice



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