Sirah
Credo Dye

Linewidth Specifications

Dispersion Option	Pump Wavelength	Tuning Range	Linewidth
Three Quartz Prisms	Green & Blue	380 nm .. 900 nm	5 cm^{-1} @ 570 nm
1800 lines / mm, 90 mm	Green	570 nm .. 900 nm	0.08 cm^{-1} @ 595 nm
2400 lines / mm, 90 mm	Green	545 nm .. 750 nm	0.06 cm^{-1} @ 570 nm
2400 lines / mm, 90 mm	Blue	430 nm .. 560 nm	0.06 cm^{-1} @ 560 nm
3000 lines / mm, 90 mm	Blue	370 nm .. 560 nm	0.05 cm^{-1} @ 560 nm

Energy Output

Dye	Pump Energy		
	0.9 mJ (Efficiency)	**4 mJ** (Efficiency)	**12 mJ** (Efficiency)
Rhodamine 6G (570 nm)	130 µJ (14.5%)	1.0 mJ (25.0%)	3.3 mJ (27.5%)
DCM (630 nm)	75 µJ (8.3%)	0.70 mJ (17.5%)	2.5 mJ (21.0%)
Styryl 8 (745 nm)	12 µJ (1.3%)	0.38 mJ (9.5%)	1.5 mJ (12.5%)
Coumarin 47 (460 nm)	20 µJ (2.2%)	0.55 mJ (13.8%)	1.8 mJ (15.0%)
Exalite 411 (411 nm)	12 µJ (1.3%)	0.40 mJ (10.0%)	1.8 mJ (15.0%)

Wavelength and Beam Characteristics

Absolute Wavelength Accuracy	< 30 pm	(prism model: 0.5 nm)
Wavelength Resetability	< 5 pm	(prism model: 0.05 nm)
Wavelength Stability	< 2 pm / °C	(prism model: 10 pm / °C)
Divergence (typical)	0.5 mrad	
Beam Size (typical)	0.8 mm (horizontal) x 2 mm (vertical)	
Polarization	> 98 %	(vertical)
ASE	< 0.5 %	
Pump Energies	(resonator only)	< 25 mJ / 4 .. 25 ns / max. 40 W average power
	(with amplifier)	< 50 mJ / 4 .. 25 ns / max. 80 W average power

Requirements

Cooling for dye solvent	300 Watt, resonator only
	600 Watt, resonator & amplifier system
Laboratory	dust-free air (flow box)
Voltage	110 .. 230 V, single phase, 50 / 60 Hz
Computer Control	Windows 2000 / XP/ Vista system,
	one serial port (RS-232, 9 pin) required

Options

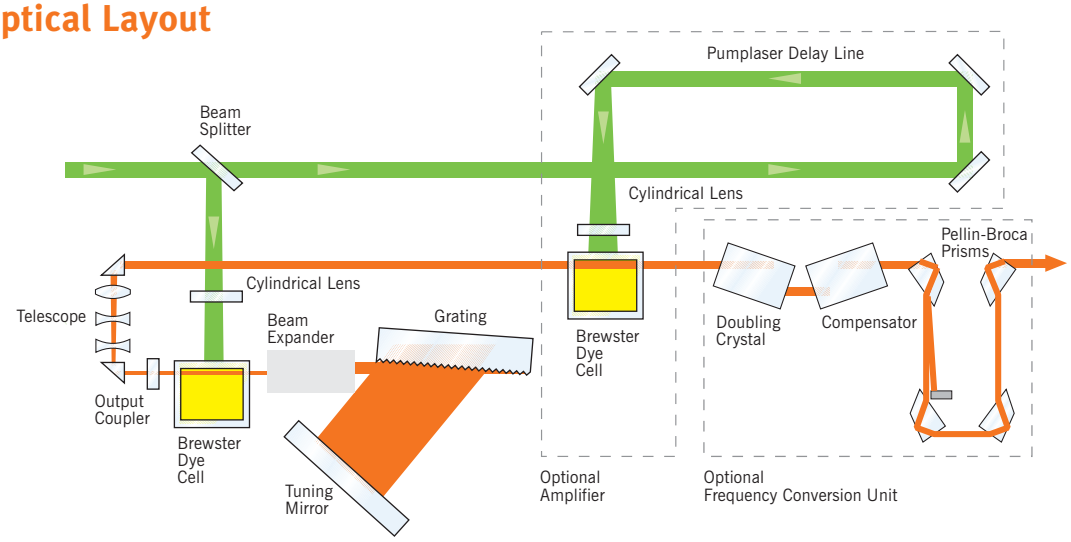
Amplifier for high energy systems

Internal open loop frequency doubling

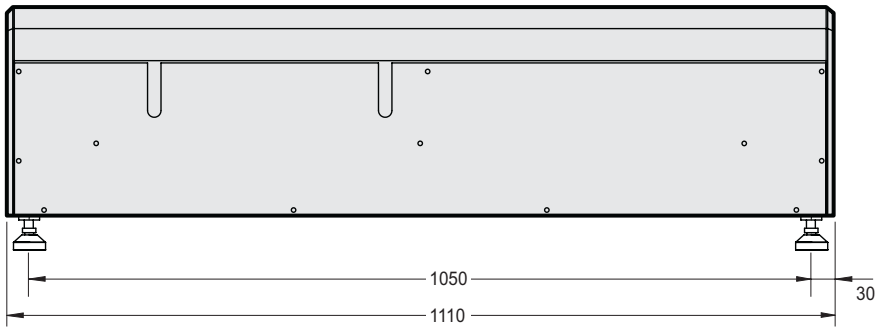
Sirah

Sirah
Credo Dye

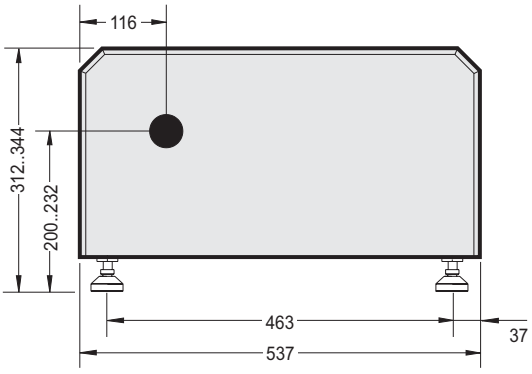
Optical Layout



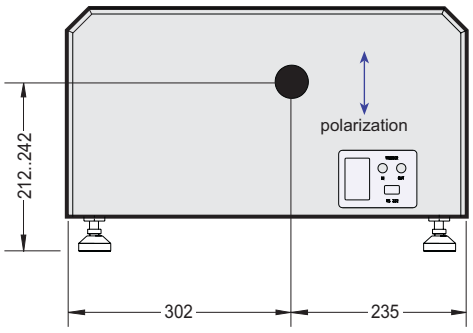
Laser Dimensions



Credo Dye (side view)



Credo Dye (pump laser input end)



Credo Dye (dye laser output end)

All Dimensions in mm
Specifications are subject to change without notice

Laser- und Plasmatechnik GmbH

Ludwig-Erhard-Straße 10
D-41564 Kaarst

Phone: +49 (0)2131.5127 8-0
Fax: +49 (0)2131.5127 8-40
http://www.sirah.com

12/2009