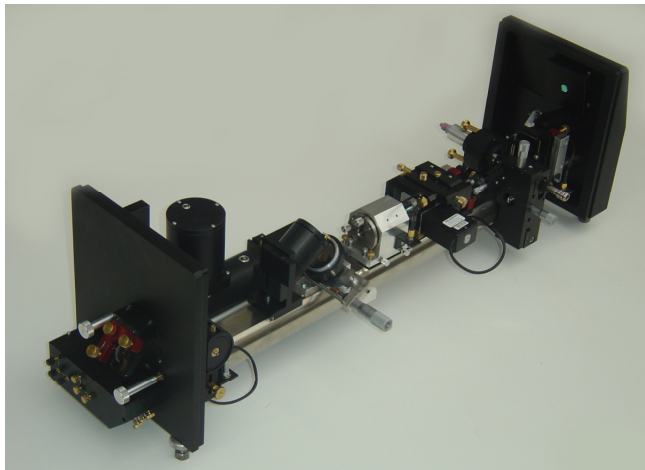


Radiant Dyes Laser & Acc. GmbH

cw Laser

Ti:Sa /Dye Standing Wave & Ring Laser External Doubling Ring



Our new carefully designed and optimized single mode ring resonator guarantees – in any configuration - high performance, stability and easy operation. All optical elements, including the dye jet and titanium:sapphire are mounted on an extremely rigid 58 mm diameter Invar rod. This extremely rigid, high thermal mass structure reduces system sensitivity to vibration and temperature changes.

Standing Wave Laser

Broadband Standing Wave Laser RD-CW-B	Three-plate birefringent filter Linewidth: 2 GHz
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Specifications of the Standing Wave Laser

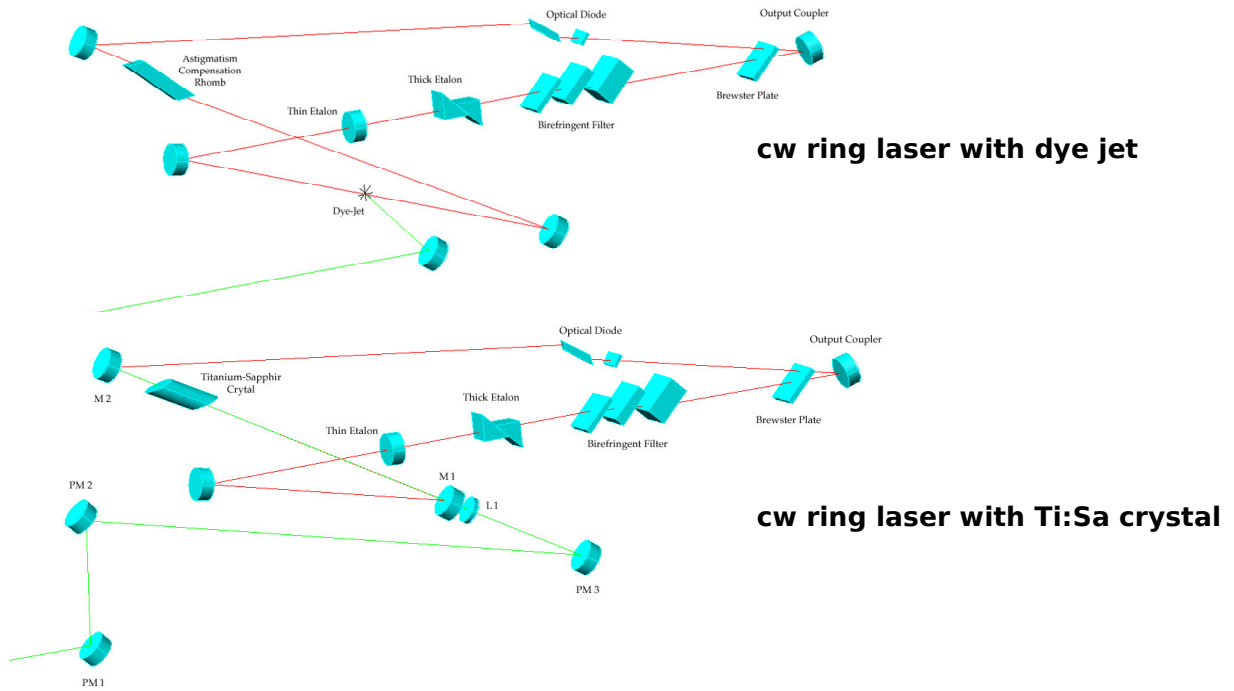
Tuning Range (Dye):	540 nm - 800 nm (optional: 400nm -540nm and 700nm-1000nm)
Conversion Efficiency (Rhodamin 6G and DCM Peak):	> 15 %
Tuning Range (Ti:Sa):	700 nm - 1000 nm
Conversion Efficiency (800nm) :	> 20 %
Linewidth: with Single Stage Lyot-Filter with Multiple Stage Lyot-Filter	< 200 GHz < 40 GHz
Divergence:	< 1,5 mrad
Beam Diameter:	< 1,3 mm

Radiant Dyes Laser & Acc. GmbH, Friedrichstr. 58, 42929 Wermelskirchen, Germany

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Optical Layouts of the Ring Lasers



Stabilized cw Ring Laser

Passively Stabilized Single-Frequency Ring Laser RD-CW-P	Manually tunable Linewidth: 20MHz
Actively Stabilized Scanning Single-Frequency Ring Laser RD-CW-A	Thin etalon Servo controlled thick etalon Reference cavity for active stabilization Piezo-operated Tweeter Mirror Hysteresis free motor drive Full electronic control Scan operation: analog and/or digital electronic control

Specifications of the Actively Stabilized Single-Frequency Ring Laser

Tuning Range (Dye):	540 nm - 800 nm (optional: 400nm -540nm and 700nm-1000nm)
Tuning Range (Ti:Sa):	700 nm - 1000 nm
Linewidth:	1 MHz
Frequency Drift:	100 MHz/h
Scan Range:	30 Ghz (optional 60 GHz)
Noise (10 Hz - 1 MHz):	2,5 %
Mode:	TEM ₀₀
Polarization:	vertical

External Frequency Doubling Unit

Featuring: High efficiency and indexmatching by electronically controlled temperature of the crystal. No back reflections in the pump laser and UV emission only in one direction.

Doubling Crystal:	BBO, LiJO ₃ , LiNbO ₃ , ADA (range: 290 - 305 nm), etc.
Conversion Efficiency:	> 20% (at 415 nm)
Linewidth:	given by the fundamental laser
Optical Resonator Length:	approx. 480 mm