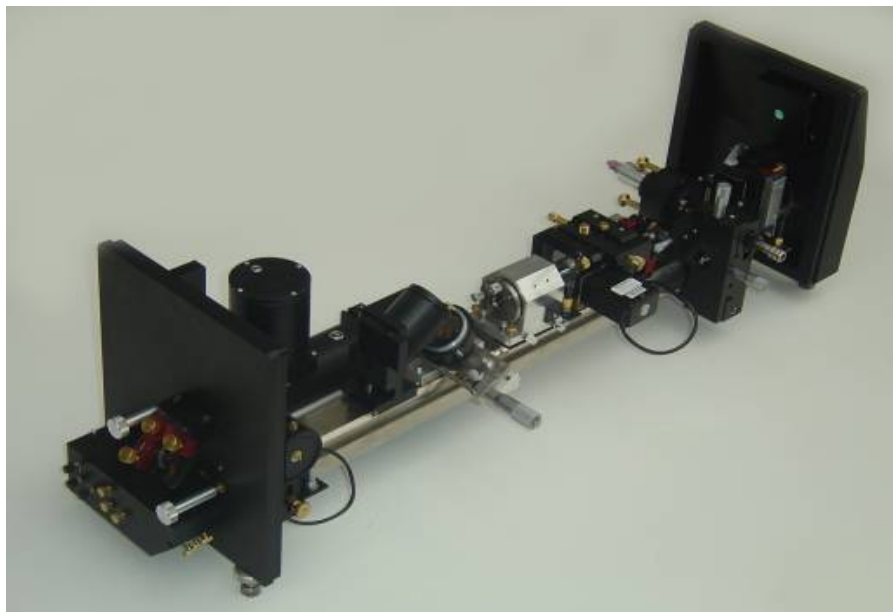


Radiant Dyes Laser & Accessories GmbH

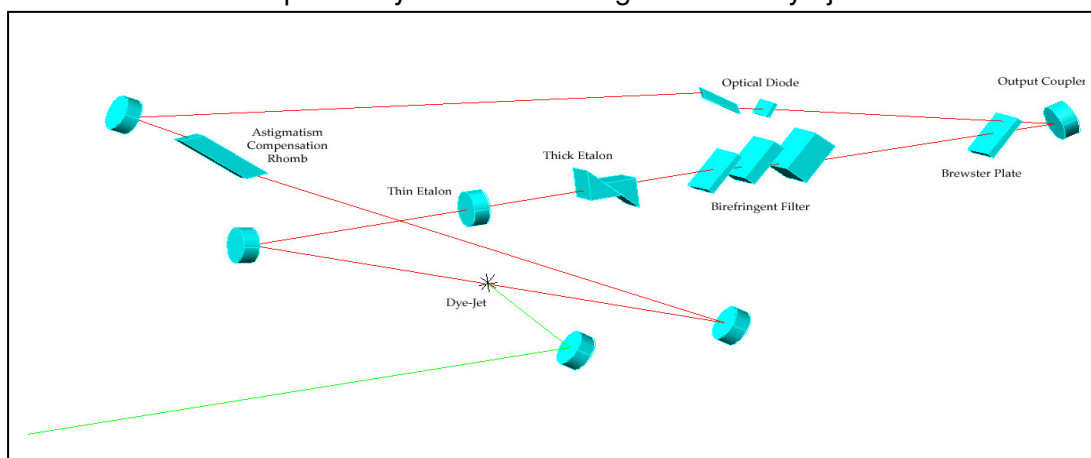
Actively and passively stabilized Dye Ring Laser



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.

In our laser system we adopted the concept of *Coherent* and improved some important features like handling, adjustability and customer-friendliness. Our laser is characterized by very high stable, precise opto mechanical components and stable reproducibility of the adjustment. Due to the fact that we use a **hysteresis free Galvo drive** instead of piezo drives, the laser is able to perform reproducible, narrowband wavelength scans.

Optical Layout of the cw ring laser with dye jet



Radiant Dyes Laser Acc. GmbH, Friedrichstr. 58, D-42929 Wermelskirchen

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Radiant Dyes Laser & Accessories GmbH

Passively stabilized cw dye ring laser (incl. thin etalon)

- Tuning range 540 – 800 nm
- Linewidth approx. 20 – 50 MHz
- Frequency drift: 100 MHz/h
- Scan Range 30 GHz
- Incl. dye circulator and dye nozzle
- Manually tunable birefringe filter scan, not mode-hopping free
- Not single-mode

Passively stabilized cw dye ring laser (incl. thick and thin etalon) with analog scan generator

- Tuning range 540 – 800 nm
- Linewidth approx. < 20 MHz
- Incl. dye circulator and dye nozzle
- Analog scan generator

Actively stabilized cw dye ring laser (incl. thick and thin etalon), single-mode

- Tuning range 540 – 800 nm
- Linewidth approx. < 1 MHz,
- Frequency drift: 100 MHz/h
- Scan Range 30 GHz
- Scan linearity: approx. 1%
- Incl. dye circulator and dye nozzle
- Reference cavity
- Electronical stabilisation, analog scan generator

Actively stabilized cw dye ring laser (incl. thick and thin etalon), single-mode, digital scan generator

- Tuning range 540 – 800 nm
- Linewidth: approx. < 1 MHz (measured over many seconds under spectroscopic conditions)
< 250 kHz rms/ 100 msec
- With opto-acoustic modulator linewidth of some Hz possible
- Frequency drift: 100 MHz/h
- Scan Range 60 GHz
- Scan linearity: approx. 1%
- Incl. dye circulator and dye nozzle
- Reference cavity
- Electronical stabilisation, digital scan generator

Options

- Automatic birefringe filter scan by stepper motor, without wavelength calibration, not mode-hopping free, controlling by RS232
- Autoscan without mode-hopping, tunability by overlapping scan, (wavemeter is required)

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