Frequency-stabilised CW single-frequency ring Dye laser by Tekhnoscan

Dye laser DYE-SF-077 is the first representative of the new contemporary generation of dye lasers that offer to the user virtually the same level of convenience and simplicity of operation as with a solid-state tuneable laser. Similarity of this laser to a solid-state one is emphasized by the fact that DYE-SF-077 can be optionally shipped in the combined configuration which allows its operation as a Ti:Sapphire laser.

Laser model DYE-SF-077 features exceptionally narrow generation line width, which amounts to less than 100 kHz. DYE-SF-077 sets new standard for generation line width of commercial lasers.

Upon customer’s order, laser DYE-SF-077 may be equipped with a USB-compatible interface for a desktop or a laptop connection used to remotely scan the generation line of the laser and to perform multi-channel data acquisition. Laser DYE-SF-077 also may be shipped together with an atom cell and a system for reduction of long-term generation line drift. Besides, laser DYE-SF-077 in combination with highly-efficient resonant frequency doubler FD-SF-07 delivers several hundreds milliwatts of narrow-band UV radiation within the 285–350-nm range.

Choose the necessary parameters and options of DYE-SF-077 and enjoy this modern and powerful laser system by Tekhnoscan!
DYE-SF-077
Frequency-stabilised CW single-frequency ring Dye laser

Specifications:

Wavelength range
570-620 nm
620-700 nm

Output
> 1.5 W at 10 W pump

Linewidth
< 100 kHz rms

Frequency drift
< 30 MHz/hour

Smooth scanning
> 6 GHz

Spatial mode
TEM₀₀

Polarization
horizontal

1. relative to the reference cavity
2. < 1 MHz/hour with frequency stabilisation to an atomic/molecular line (optionally)
3. up to 20 GHz (optionally)

Options:

1. 20 GHz smooth scanning;
2. 285-350 nm wavelength range with Resonant Frequency Doubler "FD-SF-07"
3. Absolute Frequency Stabilisation to an atomic/molecular line
4. + Ti:Sapphire laser (linewidth < 15 kHz) in the same Laser head

Compact and powerful system of dye solution circulation with a leak-free magnetically coupled pump.

Efficient system for suppression of pressure fluctuations in the dye circulation loop.

Reliable filtering system for removal of air bubbles from the dye solution.

The dye solution circulation system of DYE-SF-077 is designed to make the procedure of dye change convenient and clean.