LT-2211N Tunable Ti:sapphire Laser

LT-2211N is a new improved model of our well known $Al_2O_3:Ti^{3+}$ converter of Nd^{3+} lasers second harmonic radiation (523-532 nm) into tunable near IR UV and visible spectral band.

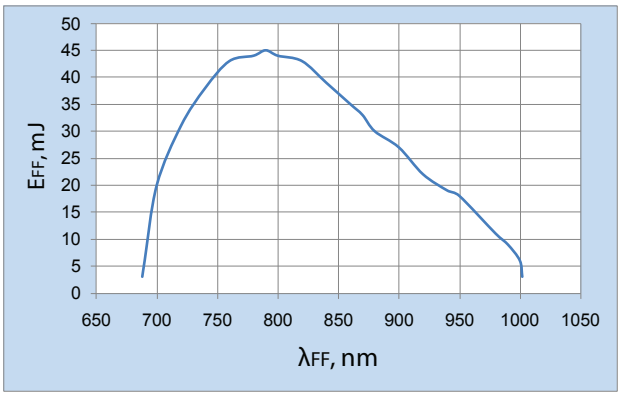
New design of laser head is increased durability and reliability of operation. The use BBO crystal in temperature controlled oven for second harmonic lasing provides the growth of SH efficiency by two times. Laser can be fit with the third and forth harmonic unit, which increases the total tuning range to the UV spectral range up to 210 nm. LT-2211N could supply with manual control of tuning as well as PC control (LT-2211N-PC). Narrow linewidth option with intracavity etalon is also available.

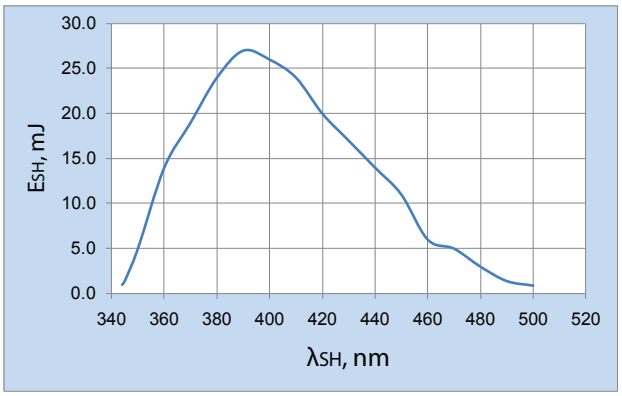
Specification

Parameter		Value
Active medium		$Al_2O_3:Ti^{3+}$ (Ti:Sapphire)
Tuning range, nm	at Fundamental	690–1000
	at Second Harmonic	350–500
	at Third Harmonic	235–325*
	at Fourth Harmonic	210–235*
Linewidth (at Fundamental), nm		≤0.1/0.01**
Pump radiation conversion efficiency, %	at Fundamental	≥ 25***/12**
	at Second Harmonic	≥ 10***/5**
	at Third Harmonic	≤30 (E_{TH}/E_{SH})*
	at Fourth Harmonic	≤25 (E_{FH}/E_{SH})*
Pulse duration (FWHM), ns		8–30
Beam divergence (full angle for 86 % of energy), mrad		<1.5
Size L x W x H, mm (Weight, kg)	LT-2211N	490 x 266 x 130 (10.0)
	Control unit for LT-2211N-PC	256 x 257 x 111 (2.0)
Pump laser requirements		
Pulse energy, mJ		100-250
Pulse repetition rate, Hz		≤50
Beam diameter, mm		≤8

* With Harmonic Generators HG-TF
** With intracavity etalon
*** At pulse repetition rate ≤20Hz

Laser Typical Tuning Curves at pump energies 145-170 mJ, 10-20 ns





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