

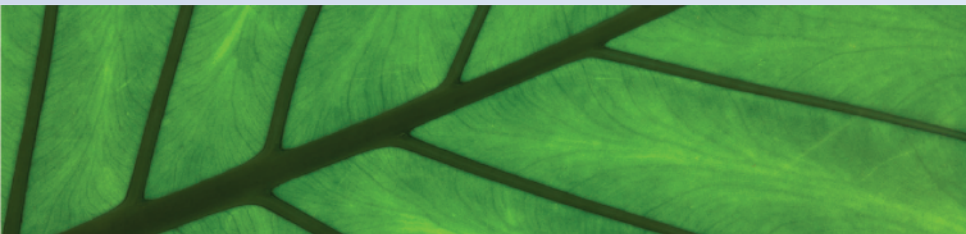


# Opolette™ 2940

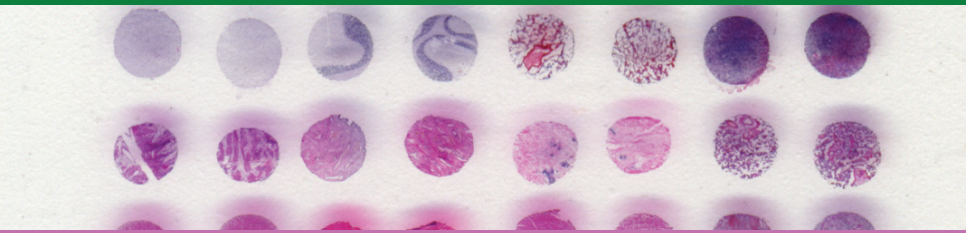
*laser light tuned for life*

Water is the primary component of biological samples relevant to life sciences. With the *Opolette™ 2940*, a micro-sized cross-section can be desorbed while keeping sample constituents intact. Ionization can occur directly or through the addition of a secondary ionization source, followed by mass spectrometric analysis. The *Opolette™ 2940* is designed for custom or commercial ion source integration. An SDK is available to integrate laser functions into instrument software. The laser can be factory tuned to other absorption peaks between 2600 and 3450 nm.

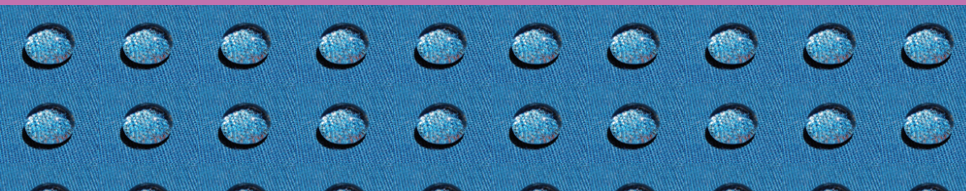
- 10 x 5 x 8" footprint
- Wavelength: 2940 nm
- Pulse Energy: Up to 6 mJ
- Pulse Width: 7 ns
- Pulse Stability: < 3% RMS
- Repetition Rate: 20 Hz



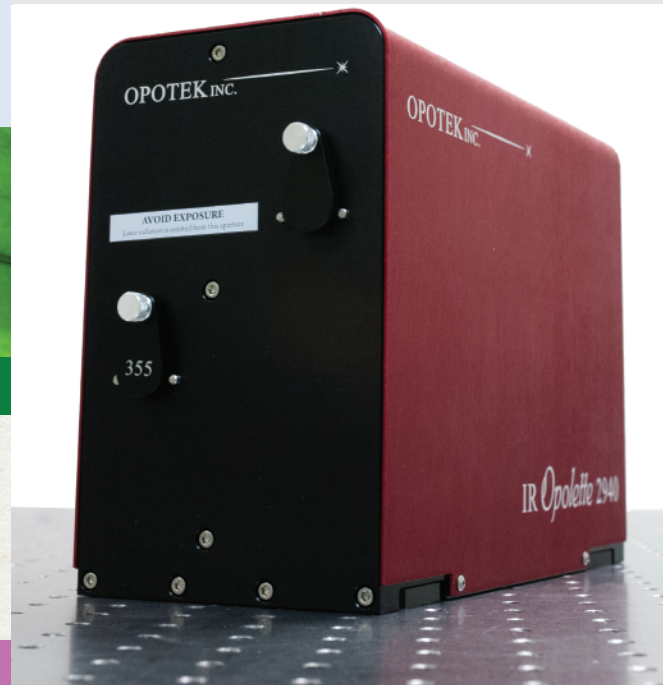
Biological Samples



Tissue Sections



Aqueous Solutions





**Specifications**

	<i>Opolette™ SE 2940</i>	<i>Opolette™ HE 2940</i>	<b>Notes</b>
Wavelength Range (nm)	2940		± 5 nm
Pulse Energy (mJ)	3	6	nominal
Pulse-Pulse Stability (% RMS)	< 3.0	< 2.5	measured at 3000 nm (1000 pulses)
Spectral Linewidth (cm <sup>-1</sup> )	4		theoretical
Linear Polarization	Vertical		
Beam Divergence (mrad)	< 10		FWHM   X-axis
	< 5		FWHM   Y-axis
Pulse Length (ns)	7		FWHM   ± 2 ns   nominal
Repetition Rate (Hz)	20		divide-by-N lower repetition rates
Beam Diameter (mm)	3	4	near-field
Residual 1064 Pump Access (mJ)	25	50	varies based on OPO wavelength

**Features**

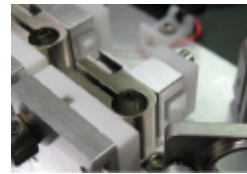
- Integrated Pump Laser Light and compact with quick connect cables and 50 million pulse flashlamp lifetime
- Residual Pump Beam Access Optical hardware to redirect residual 1064 beam for experimental use
- Alignment Diode Laser Red diode laser module aligned to overlap with OPO beam path
- Alignment Verification™ Hardware provided to verify system alignment after movement
- External Triggering Flashlamp and Q-switch IN/OUT, TTL, BNC connectors
- Computer Control All laser and OPO functions, SCAN/BURST modes
- Software Development Kit Integration of system functions into third-party programming environments

**Options**



**Motorized Variable Attenuator**

External PC-controlled optical attenuator to vary the OPO pulse energy, removeable



**Harmonics Addition**

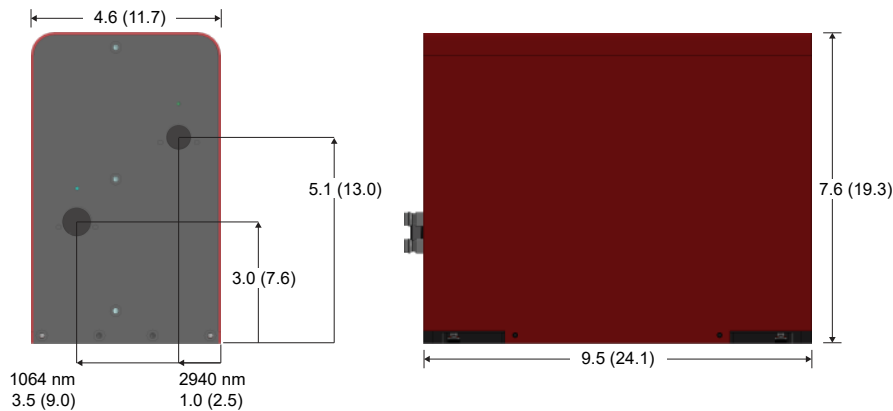
Addition of temperature-controlled, hermetically sealed harmonic generators for access to 355 nm



**Protective Hard Case**

Two protective hard cases with custom foam padding in place of standard wooden crate

**Dimensions**



**OPO Laser Head**  
**Pump Laser Power Supply**

10 lbs (4.5 kg)  
17.2 (43.5) x 5.3 (13.3) x 14.2 (36.0) | 31 lbs (14 kg)  
universal line voltage | closed-cycle water-cooled

