

Spectra-Physics. #1 in Ultrafast.

Expertise – Innovation – Results



Spectra-Physics is a leading manufacturer of cutting edge, highly reliable ultrafast lasers and amplifiers that enable breakthroughs in advanced scientific research, biological imaging and fine material processing. We offer a complete portfolio of turn key oscillators, ultrashort pulse seeders, high energy amplifiers as well as optical parametric oscillators (OPO), optical parametric amplifiers (OPA) and harmonic generators. With the largest and most experience global support team in the industry, Spectra-Physics is uniquely positioned to support your ultrafast application needs.

| Category | Product Family | Pump | Wavelength Conversion |
|-----------------------|---|-----------------|-----------------------|
| Ultrafast Oscillators | InSight DeepSee | | |
| | Mai Tai SP | | |
| | Mai Tai DeepSee | | |
| | Mai Tai | | Inspire OPO |
| | Tsunami | Millennia Prime | Inspire Blue |
| Ultrafast Amplifiers | Spitfire Ace | Millennia eV | |
| | Solstice One Box Ultrafast Amplifier | Empower | TOPAS Prime |
| | Spirit High Repetition Rate Ultrafast Amplifier | | OPA-800C |
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Applications

| Biological Imaging | Lasers |
|---|--|
| Multiphoton microscopy, TPE (Two-Photon Excitation) | InSight DeepSee, Mai Tai DeepSee |
| SHG/THG (Second/Third Harmonic Generation) microscopy | InSight DeepSee, Mai Tai DeepSee |
| STED (Stimulated Emission Depletion) microscopy | InSight DeepSee, Mai Tai |
| CARS (Coherent Anti-Stokes Raman Spectroscopy) | InSight DeepSee, Mai Tai, Inspire |
| Multimodal imaging | InSight DeepSee, Mai Tai DeepSee, Mai Tai, Inspire |
| Optical coherence tomography | Mai Tai SP |

| High Energy Physics | Lasers |
|--------------------------------------|------------------------|
| Free electron laser (FEL) seeding | Spitfire Ace, Solstice |
| Higher harmonic generation (HHG) | Spitfire Ace |
| Optical Parametric Amplifier pumping | Spitfire Ace, Solstice |
| Non linear optics | Spitfire Ace |

| Time Resolved Ultrafast Spectroscopy | Lasers |
|--------------------------------------|---|
| Fluorescence upconversion | InSight DeepSee, Mai Tai DeepSee |
| Coherent control | Tsunami, Mai Tai, Spitfire Ace, Solstice, TOPAS Prime, OPA-800C |
| OPO pumping | Mai Tai, Tsunami |
| Amplifier seeding | Mai Tai SP, Tsunami |
| Time resolved photoluminescence | InSight DeepSee, Tsunami, Mai Tai |
| 2D IR spectroscopy | Spitfire Ace, Spirit, Solstice, TOPAS Prime, OPA-800C |
| THz spectroscopy | Spitfire Ace, Spirit, Solstice, TOPAS Prime, OPA-800C |
| Transient absorption spectroscopy | Spitfire Ace, Spirit, Solstice, TOPAS Prime, OPA-800C |
| Stimulated Raman scattering | Spitfire Ace, Spirit, Solstice, TOPAS Prime, OPA-800C |
| Time resolved CARS spectroscopy | Spitfire Ace, Spirit, Solstice, TOPAS Prime, OPA-800C |
| Combustion studies | Spitfire Ace, Spirit, Solstice, TOPAS Prime, OPA-800C |



Tunable Lasers

Spectra-Physics offers a wide range of tunable lasers for the scientific research and life and health science communities. Whether you need a high power CW tunable ring laser, a high energy pulsed solid-state or dye laser solution, or wavelength tunable ultrafast pulses, we offer a robust line of products that meet even the most stringent requirements. Together with state-of-the-art accessories and diagnostics, these lasers set the industry standard in the most demanding applications.

High Energy Pulsed Tunable Lasers



Scan Series OPOs



Pulsed Dye Lasers



Credo High Rep Rate Dye Lasers

CW Tunable Lasers



Matisse Tunable Ring Lasers



3900S CW Tunable Ti:Sapphire Laser



WaveTrain CW Frequency Doubler



New Focus Tunable Diode Lasers

Ultrafast Tunable Lasers



Inspire OPOs



TOPAS OPAs



Mai Tai One Box Ultrafast Lasers



Tsunami Ultrafast Lasers