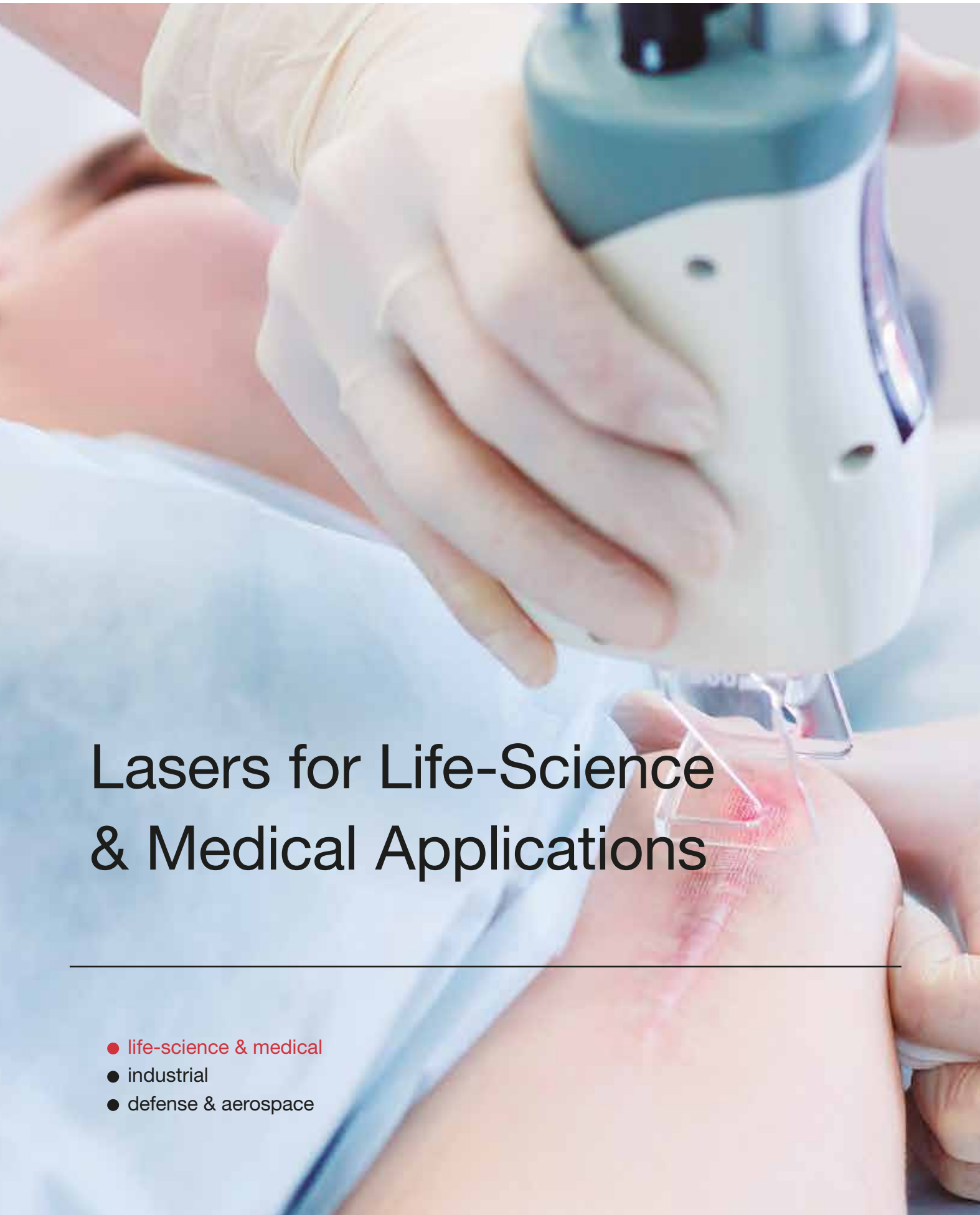
monocrom

crafting ideas into light



Lasers for Life-Science & Medical Applications

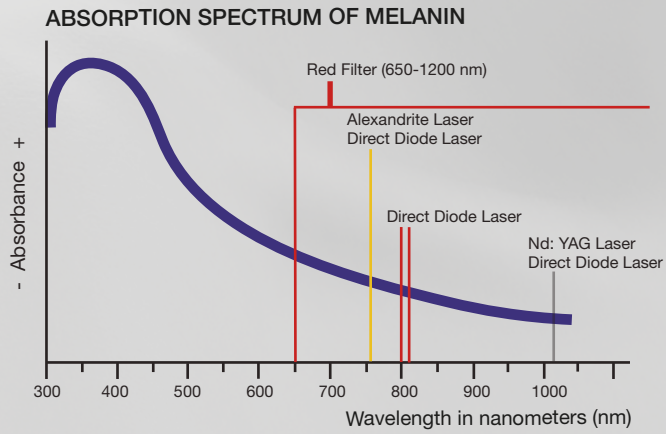
- life-science & medical
- industrial
- defense & aerospace

Dermatology & Aesthetics

Diode laser solutions for dermatology and aesthetics with different levels of integration, from laser stacks up to plug & play modules. We provide also electronics and optics giving the option of ÿber coupling, too.

Our patented solder-free Clamping™ technology, ensures the optimal treatment of laser bars, obtaining high electro-optical efÿciency and lifetime duration.

- Hair removal
- Skin resurfacing
- Lipolysis treatment
- Varicose vein treatment
- Spot & cope removal
- Wrinkle removal



Stacks	Modules	Optics
A-Stack (Actively cooled with internal °uidic macro-channels)	**D36:** ø 36mm - one stack per module	**Spot Size Options***[mm]:** 7x7, 8x8, 9x9, 9x10, 10x10, 9x11, 10x12, 9x18, 10x21, 12x30, 15x25
C-Stack (Conductivelly cooled with TEC)	**D49:** ø 49mm - one or two stacks of same/different wavelengths	**Beam Collimation:** Fast-axis collimation lenses Slow-axis collimation lenses
Wavelength [nm]: 640 - 1500		
Power [W]: up to 9000*		
Pitch [mm]: up to 0.4**		
Efÿciency [%]: 60		
Expected lifetime: 10^8 pulses		

*More power available on request | **For conductively cooled stacks | ***Customized optics available on request

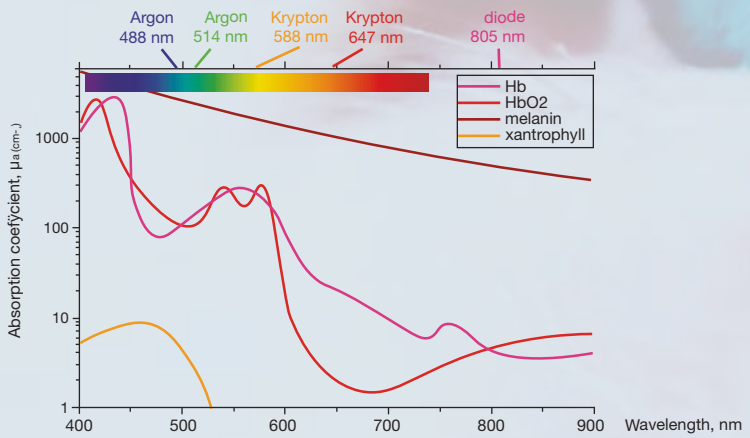
Ophthalmology

Solutions in regular and advanced retinal photocoagulation techniques based on diode-pumped solid state laser technology.

- Wide power range, °uence and pulse modulation
- Versatile, compact and robust design

Selective retinal therapy (SRT) for ultra precise laser treatments

Photocoagulation Therapy



Technical Specifications	MP-532nm	LQ-527nm
Wavelength [nm]	532 ± 1	527 ± 1
Power [W]*	Up to 5W CW / 10W QCW	
Energy [mJ]		1
Beam dimensions [μm]	85x115	
M^2	better than 1.4	better than 1.5
Pulse duration	10 ms - CW	1.55 - 2.06 μs
Repetition rate [Hz]	100 Hz - CW	Up to 220
Lifetime [h]	Up to 10.000	Up to 10.000
Fiber Coupling		
Aiming wavelength [nm]	638	638
Aiming power [mW]	2	2
Fiber core [μm]	50	50
Fiber NA	0.22	0.22
Fiber connector	SMA-905	SMA-905

*Higher output power available on request

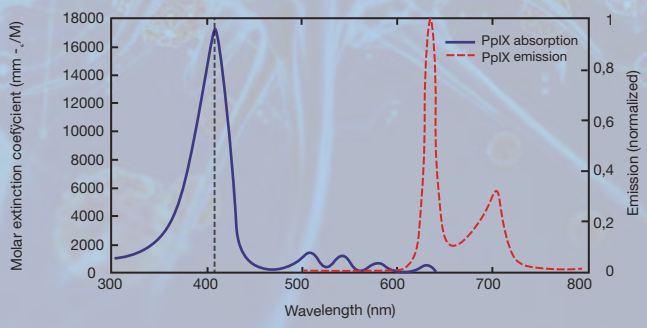
Laser Cancer Treatment

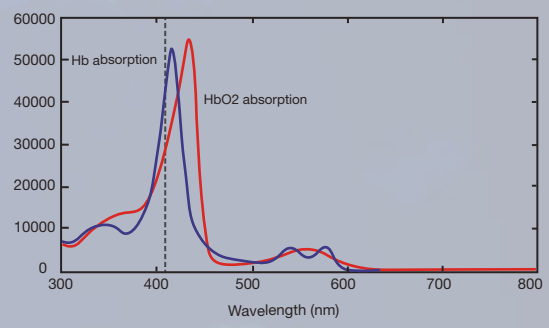
Direct diode solutions in low power:

- Free-beam optics or ÿber-coupled
- High brightness for localized treatments
- Excellent reliability

Photodynamic therapy

Pain relief treatment





Technical Specifications	S6350-1C03
Wavelength [nm]	638 ± 5
Power [W]	Up to 500 mW
Cooling system	TEC
Pulse duration	10 µs - CW
Repetition rate [Hz]	20 kHz - CW
Operating temperature [°C]	10 - 45
Output beam diameter [mm]	0.9 - 2
Output beam mode	TEM_{00} Circular

Spectroscopy

Low power, single frequency diode lasers are ideal for the most common Raman spectroscopy set-ups, while high energy diode pumped solid state laser (HiEn-PuLS), open the possibility to step into all coherent Raman spectroscopy applications as well as remote Raman spectroscopy.

- Raman
- LIBS
- CRDS

Raman Spectroscopy	narrow linewidth 532 nm / 785 nm / 1064 nm < 1 W for microscopy application HE-SSL for remote Raman spectroscopy diode laser as well as DPSSL
LIBS	single or dual-wavelength 532 nm / 1064 nm < 10 mJ to create a plasma Q-switched DPSSL
Cavity ring-down Spectroscopy	narrow linewidth (and tunable system) 680 nm - 1064 nm (depending on the trace gas) pulsed diode laser as well as DPSSL 760-765 nm oxygen detection 767 nm K-Spectroscopy (D2) 780 nm Rb-Spectroscopy (D2) 795 nm Rb-Spectroscopy (D1) 852 nm CS-Spectroscopy (D2) 922 nm Sr-Spectroscopy 953 nm Yb-Spectroscopy 953 nm Water-Spectroscopy

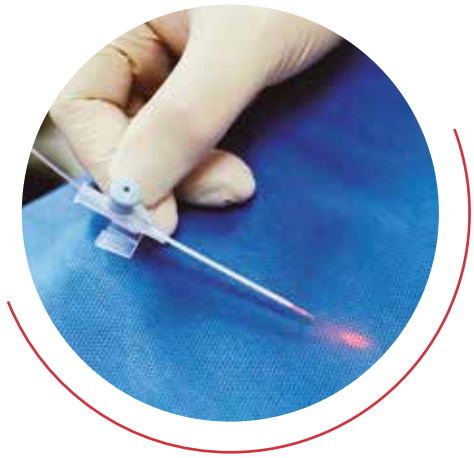
OEM Laser Solutions for Life-Science & Medical Applications

Reliable. Efÿcient. Durable

Lasers are nowadays widely used in medicine and its demand is growing rapidly thanks to its effectiveness and reliability. The advanced research in exist and new applications and the improvement of laser technology open new possibilities for laser-assisted treatments and therapies.

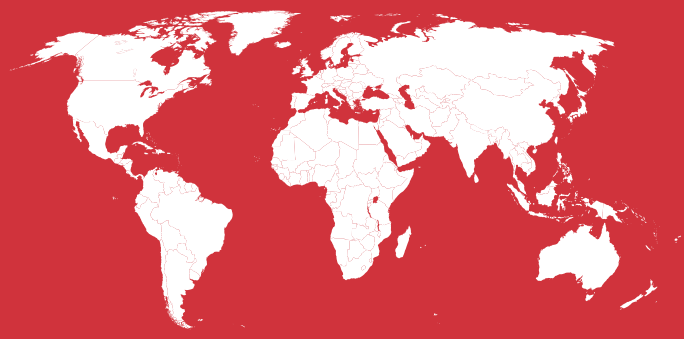
Monocrom has more than 25 years of experience and expertise delivering laser solutions for a wide range of life-science & medical applications.

We adapt to customers needs, offering a high degree of °exibility and versatility for their most demanding applications.



Main headquarters

C/ Vilanoveta, 6
08800 Vilanova i la Geltrú
Spain
T. +34 93 814 94 50
F. +34 93 814 37 67
info@monocrom.com
sales@monocrom.com
www.monocrom.com



We are global

SCAN ME

monocrom
crafting ideas into light