EVLASER
ELETTRONICA VALSERIANA

TECHNICAL SPECIFICATIONS

Alba® 355 UNICA

Laser Source	DPSS (solid state laser diode pumped)
Active Material	Nd:YVO4
Wavelength	UV (355nm)
Maximum Output	7W
Beam Size	2.5mm
Beam Quality	TEM00
Beam Divergence	1.5mrad
Power Stability	<1%
Pulse Repetition Rate	20-25kHz
Maximum Energy per Pulse	0.35mJ
Pulse Width	10-15ns
Cooling System	Air

EV-Medicals is brand of **EVLASER Group**, which is one of the world leading manufacturer of medical lasers and platform since 1978. All the systems produces by **EVLASER** are **100% Made in Italy**, both in terms of design and construction of each and every component with absolute emphasis on service performance that guarantees quality and reliability in the fields of medicine and cosmetic surgery.

EV-MEDICALS
EVLASER MEDICAL DIVISION

EVLASER for more than 30 years the most advanced Italian technology in the world
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EVLASER
ELETTRONICA VALSERIANA

CERMET SISTEMA DI GESTIONE CERTIFICATO

ACCREDIA

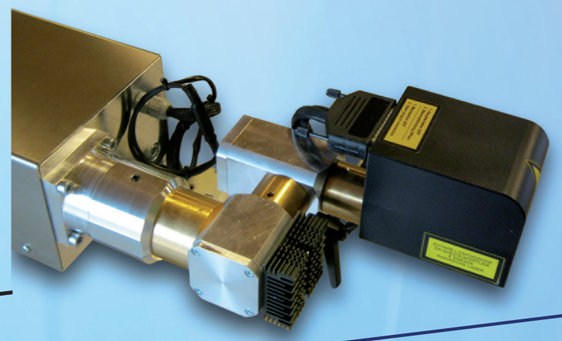
SINCE 1978
ITALIAN LASER TECHNOLOGY
IN THE WORLD

EVLASER
ELETTRONICA VALSERIANA

THE FIRST LASER UVA1 @355 nm
UNIQUE IN THE WORLD

PSORIASIS has a solution
And: ATOPIC DERMATITIS, MYCOSIS FUNGOIDES, LUPUS ERYTHEMATOSUS, SCLERODERMA, VITILIGO

- ✓ Better penetration in the derma
- ✓ Very selective delivery of large amount of energy directly on the psoriatic plaques in times dramatically shorter than traditional lamps
- ✓ No protein denaturation caused by the heat – there is no tissues heating! – so to avoid any side effect or clinical complication
- ✓ Coherence and brilliancy make finally possible very quick and effective therapeutic applications with no side effects caused by accumulation of heat
- ✓ Stable brilliancy for more than 20000 hours
- ✓ Up to 100J/cm2 in 12 seconds!



Alba® 355 UNICA

THE FIRST LASER UVA1 @355
WE CARE, WE CURE

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About PSORIASIS.....

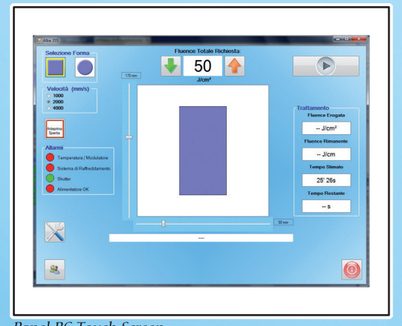
Psoriasis is a chronic, immune-mediated, genetically based inflammatory disorder with a 2–3% incidence among the Caucasian population in western countries.

During the past few years, light source therapies of chronic dermatopathological diseases have aroused the attention of a growing number of clinicians due to their proven effectiveness, specifically in synergy with chemical and biological drugs administration, allowing a rapid and long-lasting improvement in symptoms and life quality, especially in the chronic pathologies and those ones resistant to topical treatments.

In a therapeutic perspective, exposition to the UVA1 radiation therapy can be divided into low (10-30 J/cm²), medium (40-80 J/cm²) and high (80-120 J/cm²) doses.

Low doses are administered with fluorescent lamps with low-cost instrumentation and maintenance costs. High energy fluences (> 100 J/cm²) can be delivered only with metal-halide lamps that are associated with high costs and time-limited fluorescence.

Psoriasis



Panel PC Touch Screen

Our GOAL....

The use of a monochromatic laser source emitting in the UVA1 range (355 nm) allows to achieve higher and higher brightness if compared to the traditional gas-discharged tubes, dramatically lowering the exposition time while administering always the same dose.

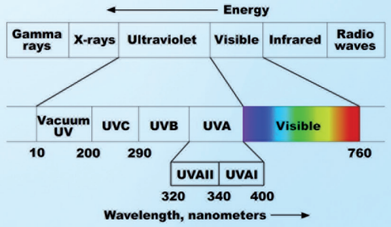
The qualitative and quantitative brightness of a monochromatic laser source would result way superior to all the devices used so far in the field.

The LASER source / EVLASER Technology

The energy administered in the UVA1 spectrum was produced using a new laser technology. The solid-state laser used an active media and a Neodymium-doped yttrium orthovanadate (Nd:YVO4) crystal that is "energetically pumped" by another laser with 808 nm wavelength.

The light emitted by the Nd:YVO4 at a wavelength equal to 1064 nm is impulsed through an ear optic crystal called Qsw which produces a frequency of 20 - 50 KHz and so an ultrashort laser pulse width (25 nanosec.).

This pulse rate is higher than 20 kilowatt and it is sent to crystals in order to duplicate and triplicate the 1064nm wavelength producing second (532 nm) and third (355nm) harmonic wavelength delivery.



The proposed MUVA1 is able to maintain a stable brightness for a number of hours consisting in 20000 deliveries and with the possibility to deliver up to 100 J/cm² in 12 seconds. This leads to a possible selective treatment of 5 cm² psoriatic plaques in a minute if compared to UVA1 instruments that deliver a total body of nearly 100 J in 45 minutes.

The RESULTS

Complete remission of psoriatic plaques consisting in a 90.3% - 95.65 reduction in the PASI score was observed after 10 to 12 treatments over a period of 2 to 3 weeks from the beginning of therapy for patients affected by mild to medium psoriasis. Patients affected by severe psoriasis showed a partial remission of psoriatic plaques consisting in a 50% reduction in PASI score after a 3 week treatment consisting in a total of 12 sessions. The mean PASI score decreased from a mean value of 24,56 at baseline (7,4- 43,0) to a mean value of 2,93 at the third week of treatment (range 9,1-0,9). The highest regressions are related to energetic fluences higher than 100 J/cm², that are almost impossible to reach with normal UVA lamps during short exposure.

THE FIRST LASER UVA1 @355

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