

VICTOR GARKAVY

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SUMMARY OF QUALIFICATIONS:

MS in Applied Optics and Quantum Electronics combined with 18+ years experience in Research and Development of Medical and Industrial Lased-based equipment. Accomplished in all phases of Project/Product Management from Marketing Product Definition through Conceptualization, Design, Analysis, Integration, Testing, Validation and Verification in ISO 9001 and GMP environment. Proven ability to complete challenging assignments and meet aggressive schedule; strong organizational, communicational and team leadership skills.

PROFESSIONAL EXPERIENCE:

<p>1999- Present</p>	<p>VIGITEK, Inc., Darien, CT; President and Principal Consultant</p> <ul style="list-style-type: none">• Offers consulting services in Optics and Solid-State Lasers for Bio-Medical Applications, including Product Definition, Prototype Design and Development, R&D Strategy, Clinical Feasibility Studies and IP assessment. Expertise in direct diode, diode- and flashlamp-pumped lasers, stable and unstable resonator design, passive and active Q-switching, mode-locking, regenerative amplification, spectral selection and CW & pulsed nonlinear frequency conversion. Practical experience in optical fiber and articulated arm beam delivery, handpiece design, spatial beam processing, coherent and non-coherent image formation and transfer, optical, electrical and thermal sensing and detection, feedback signal processing and control automation. Performed studies on laser beam interaction with biological tissues, design optimization and application development in the areas of dermatology, plastic and internal surgery.
<p>1997-1999</p>	<p>TREX Medical Corp. (A Thermo Electron Co.), Danbury, CT; Program Director, Laser Division.</p> <ul style="list-style-type: none">• Developed a 2.3 J/pulse Q-switched Nd:YAG Laser with flat-top beam profile for Thermolase Softlight Hair Removal Process. Patentable device incorporated a proprietary beam-delivery system, allowing for 50% increase in efficacy for patients with wide range of skin color. The laser was CE Marked, approved for sale in the U.S., Japan and Korea and resulted in \$25M in revenue.• Developed a high-energy (3.2 J/pulse, 25W, 110VAC) and the most efficient at the time Er:YAG laser for Naturalase Skin Resurfacing Process. Device incorporated a novel fully-automatic, motorized handpiece with auto-adjustment of the spot-size and output energy for a given fluence• Performed design analysis and initial experiments on generation of 585 nm out of a dual-wavelength LP Nd:YAG laser through frequency-mixing; carried out efficacy assessment of a variable-pulsewidth diode-pumped Er:YSGG laser for skin resurfacing with both ablation and coagulation capabilities.• Performed numerous Marketing and R&D presentations for medical doctors, prospective clients, investors and business alliances.

1995-1997 Continuum Bio-Medical, Santa Clara, CA; Project Manager.

- Developed a second-generation, higher power Medlight Q-switched Nd:YAG laser (1064/532 nm) for the removal of tattoos and treatment of pigmented lesions.
- Developed an original fluoride fiber-based beam delivery arrangement for the Er:YAG laser for hard-tissue dental applications (together with Hoya Ltd., Japan). The assembly included sealed quartz jacket, purged by a N-generator. Carried out the experiments on using this fluoride-fiber as a delivery system of a high-energy Er:YAG laser for skin resurfacing.
- Performed design work of the 585 and 650 nm Polymer Dye handpieces for the Medlight-series Nd:YAG Laser.

1988-1995 Quantronix, Inc., Hauppauge, N.Y.; Senior Research Engineer.

- Developed a pulsed Nd:YAG laser for welding metals and alloys used in dental restoration industry; designed proprietary beam delivery and imaging arrangements for the remote welding.
- Conducted a full-cycle product development from a conceptual design to the release into production of a 100Hz Nd:YAG and 30Hz Cr, Tm, Ho:YAG combo-laser for the soft-tissue dental applications.
- Designed a novel laser beam attenuator for surgical system. The unit allowed very rapid and continuous output power adjustment with minimal spatial beam quality distortion with dynamic range of 40 dB and average power of up to 100 W.
- Performed experimental work on excimer laser repair of 0.25 μm phase-shifting semiconductor photomasks.
- Wrote technical proposal and won a contract for an all Solid-State Laser simultaneously emitting three primary RGB colors. The system was based on a dual Ti:Sapphire laser, pumped by a frequency-doubled, high repetition rate diode-pumped Nd:YLF laser. This patented device was first of its kind used for color separation in high-resolution printing.

EDUCATION:

**1980-1985 State University of Belarus, Physics Dept., Minsk
Master of Science, Applied Physics; High Honors Graduate
Major: Optics & Quantum Electronics**

**PATENTS: “All Solid-State Laser Emitting Three Primary Colors”, No. 5295143
“Novel design of the Fractional Handpiece for Er:YAG Laser” (Pend.)**

CERTIFICATES AND AWARDS:

Dec.'97 Special Presidential Award for the Contribution into Growth of TREX Medical Corp.;

Mar.'98 Outstanding Score in Annual Performance Review;

June'98 Certificate of Thermo-Electron Management Training 2 year Course.