

11 July 1986

VIA COURIER

Fine Arts Research Holographic Centre,
1134 West Washington Boulevard,
Chicago, ILL. 60607

Attention: Mrs. Loren Billings

Dear Mrs. Billings,

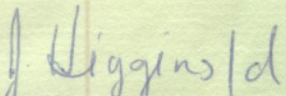
I enclose a quotation for the JK Lasers Model HLS-4, 10 Joule, ruby laser for holography that we recently discussed on the telephone. I have also included some information on some standard holographic lenses, beam splitters and reflecting mirrors at the request of John Hoffman who called me after you and I had spoken.

As I told you on the telephone, we do not offer complete holographic set-ups, other than the engineering Holocamera, but in sourcing the optics for this, I would recommend CVI in Albuquerque for all dielectric coated components that have to handle the beam at high power densities.

Lastly I would like to confirm that the price offered includes delivery to your laboratory and the services of our installation engineer to install the equipment and train your people how to use it.

I hope that this meets with your approval and look forward to hearing from you.

Yours sincerley,


Jim Higgins,
Director of Marketing
for Solid State Lasers.

JFH/db
Enclosures

LUMONICS

Lumonics Inc., 105 Schneider Rd., Kanata (Ottawa),
 Ontario, Canada K2K 1Y3
 TLX 053-4503 CANADA PH 613-592-1460
 FAX 613-592-5706

QUOTATION

QUOTATION
 NO. 368-86

TO: Fine Arts Research Holographic Centre
 1134, West Washington Boulevard
 Chicago, ILL. 60607

WE TAKE PLEASURE
 IN SUBMITTING THE FOLLOWING PRICES
 SUBJECT TO CONDITIONS STATED
 HEREON.

ATTENTION: Mrs. Loren Billings

CUSTOMER REF:

ITEM	QTY.	DESCRIPTION	UNIT PRICE	AMOUNT
1.	1	Holographic Ruby Laser System Model HLS-4 Comprising: Twin optical rail and cover, 4 x 1/4 inch selected quality ruby laser oscillator rod in twin linear lamp close coupled pumping chamber, KD*P Pockels cell and polarizer Q-switch assembly, Transverse mode controlling aperture in mount, Two longitudinal mode controlling intra-cavity etalons, in temperature stabilized housings, fitted in high precision angular adjusting mounts, Invar stabilized resonator with high durability dielectric coated front and rear laser mirrors in high precision angular adjusting mounts, Spatial filter assembly, Two 90 degree beam bending mirrors in precision controlled angular adjusting mounts for aligning the oscillator to the amplifiers, 8 x 3/8 inch selected quality ruby laser amplifier rod in four linear lamp close coupled pumping chamber, 8 x 5/8 inch selected quality ruby laser amplifier rod in four linear lamp close coupled pumping chamber, Main power supplies in twin doored consoles with separate control units,		\$88,380.

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ITEM	QTY.	DESCRIPTION	UNIT PRICE	AMOUNT																
		<p>HLS-4 (continued)</p> <p>Double pulse Pockels cell drive unit, Temperature controlled closed circuit cooling system via liquid to mains water heat exchanger.</p> <p>The complete system to meet the following minimum performance specification:</p> <table> <tr> <td>Wavelength</td> <td>694.3 nm</td> </tr> <tr> <td>Pulse energy in either one or two pulses</td> <td>10.0 Joules</td> </tr> <tr> <td>Transverse mode structure</td> <td>Amplified TEM₀₀</td> </tr> <tr> <td>Pulse duration (nominal)</td> <td>30 nanoseconds</td> </tr> <tr> <td>Double pulse separation</td> <td>1-800 microseconds</td> </tr> <tr> <td>Pulse repetition rate</td> <td>up to 3 p.p.m.</td> </tr> <tr> <td>Coherence Length</td> <td>1 metre contour free on 90% of shots</td> </tr> <tr> <td>Lamp life</td> <td>10⁵ shots</td> </tr> </table>	Wavelength	694.3 nm	Pulse energy in either one or two pulses	10.0 Joules	Transverse mode structure	Amplified TEM ₀₀	Pulse duration (nominal)	30 nanoseconds	Double pulse separation	1-800 microseconds	Pulse repetition rate	up to 3 p.p.m.	Coherence Length	1 metre contour free on 90% of shots	Lamp life	10 ⁵ shots		
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PRICES DO NOT INCLUDE ANY ~~IMPORT DUTIES~~, FEDERAL, STATE, PROVINCIAL OR LOCAL TAXES

ALL ITEMS ARE QUOTED IN U.S. CURRENCY, F.O.B. Destination

THIS QUOTATION VALID FOR A MINIMUM OF 60 DAYS

PAYMENT TERMS:

Net 30 days

DATE:

11 July 1986

DELIVERY:

Approx.
6 weeks ARO

LUMONICS INC.

J. Higgins

AUTHORIZED SIGNATURE

Jim Higgins,
Director of Marketing

HOLOGRAPHIC OPTICS

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>PRICE</u>
12210060A	2 inch diameter beam splitter to remove 8% from beam at 45 degrees incidence for vertical polarization with 3° wedge.	\$750.00
1231025RA	Negative lens for beam expansion, with high durability dielectric coatings for 694.3 nm, 1" diameter, - 33 mm focal length.	250.00
1231002RA	Negative lens for beam expansion, with high durability dielectric coatings for 694.3 nm, 1" diameter, - 50 mm focal length.	250.00
122220240A	High reflectivity, dielectric coated mirror, coated for 694.3 nm incidence at 45°, plano front surface, 2" diameter.	320.00