

U.S. DEPARTMENT OF COMMERCE Form **PTO-1595** U.S. Patent and Trademark Office (Rev. 03/01) 102204958 OMB No. 0651-0027 (exp. 5/31/2002) To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof Name of conveying party(ies): Name and address of receiving party(ies) Ivan Eliashevich, Hari Venugopalan, Bob Karlicek, and Name: Emcore Corporation Stanton Weaver Internal Address: Street Address: Additional name(s) of conveying party(ies) x No attached? 145 Belmont Drive 3. Nature of Conveyance: x |Assignment Merger Security Agreement Change of Name City: Somerset Other Zip: 08873-1214 NJ State: Additional name(s) & June 28, 2002; July 12, 2002; address(es) attached: Yes No June 10, 2002; June 27, 2002; respectively **Execution Date:** Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the new application is: B. Patent No.(s): A. Patent Application No.(s): 10/108,292 Additional numbers attached? Yes 6. Total number of applications and 5. Name and address of party to whom correspondence patents involved: concerning document should be mailed: Name: Joseph J. Opalach LERNER, DAVID, LITTENBERG, KRUMHOLZ & 40.00 7. Total fee (37 CFR 3.41) MENTLIK, LLP Enclosed Internal Address: Authorized to be charged to deposit account Street Address: 600 South Avenue West Authorized to be charged to credit card (Form 2038 enclosed) Deposit account number: Zip: 12-1095 State: City: (Attach duplicate copy of this page if paying by deposit account) 07090 NJ Westfield DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. August 19, 2002 <u>Joseph J. Opalach</u> Signature Name of Person Signing Total number of pages including cover sheet, attachments, and documents:

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former PTO/SB/15 (8-00) Modified LDLK&M Docket Number (Optional) ASSIGNMENT OF UTILITY APPLICATION **EMCORE 3.0-056** Whereas, I. Ivan Eliashevich 185 South Orange Avenue, #10; South Orange, New Jersey 07079 hereafter referred to as assignor, have with others invented certain new and useful improvements in OPTOELECTRONIC DEVICE WITH IMPROVED LIGHT EXTRACTION x for which an application for a United States Letters Patent was filed on March 27, 2002 Application Number 10/108,292 for which an application for a United States Letters Patent was executed by me on and **Emcore Corporation** Whereas. a corporation of New Jersey herein referred to as "assignee" whose mailing address is 145 Belmont Drive; Somerset, New Jersey 08873-1214 is desirous of acquiring the entire right, title and interest in the same; NOW, THEREFORE, in consideration of the sum of one 1.00 dollars (\$), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee. 6/28/02

(Date)	(Signature)
State of $\frac{Nuv Jersey}{Somerset}$) SS:	
On this <u>Z8th</u> day of <u>June</u> , <u>Doe</u> <u>Eliashevich</u> , to me personally known as the individual who me that the same was executed by him/her of his/her own f	before me personally came the above-named <u>lvar</u> bexecuted the foregoing instrument, who acknowledged to free will for the purposes therein set forth.
Fucew Patrice Beartum (Notary Public)	FELECIA PATRICE BEACHUM NOTARY PUBLIC OF NEW JERSEY And Commission Exp. Aug. 10, 2005

forms are submitted. * Total of Х

PATENT

REEL: 013222 FRAME: 0048

ASSIGNMENT	OF	UTILI	TY.	APP	LICA	ATIO	N
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Docket Number (Optional)

EMCORE 3.0-056

	EIVICORE 3.0-056			
Whereas, I,Hari Venugopalan575 Easton Avenue, Apt. 10H; Somerset, New Jersey hereafter referred to as assignor, have with others invented of				
OPTOELECTRONIC DEVICE WITH IMPROVED L				
x for which an application for a United States Letters Patent was filed onMarch 27, 2002 Application Number 10/108,292				
for which an application for a United States Letters Pa and	atent was executed by me on ,			
Whereas, Emcore Corporation				
a corporation of New Jersey herein referred to as "assignee"	whose mailing address is			
145 Belmont Drive; Somerset, New Jersey 08873-1214				
is desirous of acquiring the entire right, title and interest in the				
is desired or acquiring the critic right, the and interest in the	o odino,			
NOW, THEREFORE, in consideration of the sum of one dollars (\$ 1.00), the receipt whereof is acknowledged, and other good and valuable consideration, I as assignor hereby sell, assign and set over to said assignee my entire right, title and interest for the United States of America and all other countries in and to said invention and the aforesaid utility patent application and all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States of America and all other countries, for said invention, including without limitation all applications and patents for said invention claiming priority or benefit of the aforesaid utility application pursuant to any law or treaty, and including the right to claim such priority or benefit and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said improvements or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for me and my legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all original, divisional, continuation, reissue and other applications for Letters Patent on said improvements and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said improvements, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the expenses incident to said applications to be borne and paid by said assignee.				
7/12/02	V			
(Date)	(Signature)			
State of New LVSG) SS: County of $\frac{New LVSG}{50merset}$)				
On this 12 ⁴¹⁶ day of July, 2002 before me personally came the above-named <u>Hari</u> Venugopalan, to me personally known as the individual who executed the foregoing instrument, who acknowledged to me that the same was executed by him/her of his/her own free will for the purposes therein set forth.				
Jele Cen Patrice Beacreem (Notary Public)	ELECIA PATRICE BEACHUM			
(Notary Public)	OTARY PUBLIC OF NEW JERSEY			
	V Commission Exp. Aug. 10, 2005			

x *Total of 4 forms are submitted.

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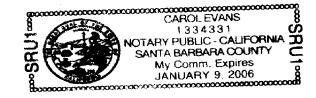
REEL: 013222 FRAME: 0049

ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)			
	EMCORE 3.0-056			
Whereas, I, Bob Karlicek	of			
3238 Darien Lane; Twinsburg, Ohio 44087				
hereafter referred to as assignor, have with others invented cert	ain new and useful improvements in			
OPTOELECTRONIC DEVICE WITH IMPROVED LIGHT EXTRACTION				
x for which an application for a United States Letters Patent was filed on March 27, 2002				
Application Number 10/108,292				
for which an application for a United States Letters Pater	nt was executed by me on			
and	· · · · · · · · · · · · · · · · · · ·			
Whereas, Emcore Corporation a corporation of New Jersey herein referred to as "assignee" wh	poso mailing address is			
145 Belmont Drive; Somerset, New Jersey 08873-1214	lose mailing address is			
is desirous of acquiring the entire right, title and interest in the sa	ame:			
NOW, THEREFORE, in consideration of the sum of <u>one</u> is acknowledged, and other good and valuable consideration, I	dollars (\$ 1.00), the receipt whereof			
assignee my entire right, title and interest for the United State	es of America and all other countries in and to said			
invention and the aforesaid utility patent application and all o applications and patents applied for or granted therefor in the	riginal, divisional, continuation, substitute or reissue			
said invention, including without limitation all applications and p	atents for said invention claiming priority or benefit of			
the aforesaid utility application pursuant to any law or treaty, a	nd including the right to claim such priority or benefit			
and the Commissioner of Patents and Trademarks is hereby a improvements or resulting therefrom to said assignee herein,	as assignee of the entire interest therein; and the			
undersigned for me and my legal representatives, heirs and as	ssigns do hereby agree and covenant without further			
remuneration, to execute and deliver all original, divisional, co Patent on said improvements and all assignments thereof to s	ntinuation, reissue and other applications for Letters			
its representatives all facts known to the und	ersigned respecting said improvements, wherever			
The state of the s	ings in which any of said applications of patents may			
become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to aid assignee, its successors, assigns and nominees to obtain patent protection for said improvements in all countries, the				
expenses incident to said applications to be borne and paid by s	said assignee.			
	21 11/1/1			
June 10, 2002 1	(Signature)			
(Date)	(Signature)			
State of Calif) SS:				
County of Santa Barbara)				
10 th 10 2000 hofe	ore me personally came the above-named Bob			
the individual who executed the foregoing instrument, who acknowledged to me				
that the same was executed by him/her of his/her own free will for the purposes therein set forth.				
N 16				
(Notary Public)				
(140.0.1)				

forms are submitted.

*Total of

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ASSIGNMENT OF UTILITY APPLICATION	Docket Number (Optional)			
	EMCORE 3.0-056			
Whereas, I, Stanton Weaver	of			
119 Hemlock Terrace; Northville, New York 12134				
hereafter referred to as assignor, have with others invented certain new and useful improvements in				
OPTOELECTRONIC DEVICE WITH IMPROVED LIGI	HT EXTRACTION			
x for which an application for a United States Letters Patent was filed on March 27, 2002				
Application Number 10/108,292				
for which an application for a United States Letters Pater	nt was executed by me on ,			
and				
Whereas, Emcore Corporation				
a corporation of New Jersey herein referred to as "assignee" wh	nose mailing address is			
145 Belmont Drive; Somerset, New Jersey 08873-1214				
is desirous of acquiring the entire right, title and interest in the sa	ame;			
NOW, THEREFORE, in consideration of the sum of one is acknowledged, and other good and valuable consideration. It assignees my entire right, title and interest for the United State invention and the aforesaid utility patent application and all of applications and patents applied for or granted therefor in the said invention, including without limitation all applications and patents and the aforesaid utility application pursuant to any law or treaty, as and the Commissioner of Patents and Trademarks is hereby as improvements or resulting therefrom to said assignee herein, undersigned for me and my legal representatives, heirs and as remuneration, to execute and deliver all original, divisional, concept and the companion of the said improvements and all assignments thereof to sassignee or its representatives all facts known to the underequested, to testify in any interferences or other legal proceed become involved, to sign all lawful papers, make all rightful of assignee, its successors, assigns and nominees to obtain patent expenses incident to said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said applications to be borne and paid by said and the said and the said and the said applications to be borne and paid by said and the said and the said and the said application of the said and the said application of the said and the said application of the said application and the said application of the said application and the said application and the said application and	es of America and all other countries in and to said riginal, divisional, continuation, substitute or reissue United States of America and all other countries, for atents for said invention claiming priority or benefit of and including the right to claim such priority or benefit authorized and requested to issue all patents on said as assignee of the entire interest therein; and the signs do hereby agree and covenant without further intinuation, reissue and other applications for Letters aid assignee or its assigns, to communicate to said ersigned respecting said improvements, whenever ings in which any of said applications or patents may ofthe, and to do generally everything necessary to aid the protection for said improvements in all countries, the			
(Date)	(Signature)			
0 11				
State of Schenectady) 55:				
,	e me personally came the above-named <u>Stanton</u> ed the foregoing instrument, who acknowledged to me for the purposes therein set forth.			

ALMA ALEXANDER
Notary Public, State of New York
No. 6000700
Qualified in Schenectady County
Commission Expires December 22.

RECORDED: 08/26/2002

*Total of

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forms are submitted.

PATENT REEL: 013222 FRAME: 0051