501967075 06/25/2012

PATENT ASSIGNMENT

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| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------|----------------|
| Simi GEORGE | 06/25/2012 |
| Sally PUCILOWSKI | 06/25/2012 |

RECEIVING PARTY DATA

| Name: | SCHOTT NORTH AMERICA, INC. | |
|-----------------|----------------------------|--|
| Street Address: | 400 YORK AVENUE | |
| City: | DURYEA | |
| State/Country: | PENNSYLVANIA | |
| Postal Code: | 18642 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13531947 |

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: RDD-0030

NAME OF SUBMITTER: Csaba Henter

Total Attachments: 1

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PATENT

REEL: 028436 FRAME: 0349

OF \$40.00 15551847

ASSIGNMENT

ATTY, DOCKET NO. RDD-0030

WHEREAS the below named inventor (if only one inventor is named below) or inventors (if phend inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement(s) relating to

SILICA AND FLUORIDE DOPED HEAVY METAL OXIDE GLASSES FOR VISIBLE TO MID-WAVE INFRARED RADIATION TRANSMITTING OPTICS AND PREPARATION THEREOF

| and for w | nich one ar | more of the following apply: | |
|-------------|------------------------|--|--|
| | U.S. Prov | isional Application Serial No. was filed in the United States Patent and Trademark Office on . | |
| \boxtimes | A U.S. Non-Provisional | | |
| | | application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date. Application Serial No. for Letters Patent was filed in the U.S. Patent and Trademark Office on as International Application No. was filed on , designating the United States. | |
| | AND WE | ERFAS SCHOTT NORTH AMERICA, INC. 400 YORK AVENUE DURYEA, PA. 18642 | |

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, (tite, and interest in and to said invention and all application(s) listed above, including any and all earlier priority rights (U.S. and foreign), divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application(s), including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all U.S. (including provisional) or foreign priority and/or convention rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto concerning said invention, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all earlier priority rights (U.S. and foreign),divisions and continuations thereof, any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, including the right to sue for damages occurring before the assignment, with all the rights, powers, privileges and advantages in anywise arising from or appertanting thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample and benefit a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to execute all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to execute any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this assignment information which may be necessary or desirable in order for the United States Patent and Trademark Office to properly record this document.

IN TESTIMONY WHEREOF this assignment is executed by ASSIGNOR

| 201 FULL NAME OF SOLE OR FIRST NAMED INVENTOR | A INVENTOR'S SIGNATURE | DATE |
|---|------------------------|------------|
| Simi GEORGE | Simborgs | 06/25/12 |
| 202 FULL NAME OF SECOND JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE: |
| Sally PUCILOWSKI | July Recitowski | 25 June 12 |

PATENT REEL: 028436 FRAME: 0350

RECORDED: 06/25/2012