

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7082352

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
BRUCE GARDINER AITKEN	10/27/2021
SEAN MATTHEW GARNER	10/29/2021
THOMAS DALE KETCHAM	11/08/2021
DANIEL ALOYSIUS NOLAN	10/27/2021
JUN YANG	10/27/2021
HAITAO ZHANG	11/04/2021
RECEIVING PARTY DATA	
Name:	CORNING INCORPORATED
Street Address:	SP-TI-03-1
City:	CORNING
State/Country:	NEW YORK
Postal Code:	14831
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17276856
CORRESPONDENCE DATA	
Fax Number:	(607)974-3848
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	607-974-1442
Email:	nygardj@corning.com
Correspondent Name:	CORNING INCORPORATED
Address Line 1:	SP-TI-3-1
Address Line 4:	CORNING, NEW YORK 14831
ATTORNEY DOCKET NUMBER:	SP18-345
NAME OF SUBMITTER:	JESSICA NYGARD
SIGNATURE:	/Jessica Nygard/
DATE SIGNED:	12/20/2021
Total Attachments: 12	

source=20211109_SP18-345_US_Assignment_signed#page1.tif
source=20211109_SP18-345_US_Assignment_signed#page2.tif
source=20211109_SP18-345_US_Assignment_signed#page3.tif
source=20211109_SP18-345_US_Assignment_signed#page4.tif
source=20211109_SP18-345_US_Assignment_signed#page5.tif
source=20211109_SP18-345_US_Assignment_signed#page6.tif
source=20211109_SP18-345_US_Assignment_signed#page7.tif
source=20211109_SP18-345_US_Assignment_signed#page8.tif
source=20211109_SP18-345_US_Assignment_signed#page9.tif
source=20211109_SP18-345_US_Assignment_signed#page10.tif
source=20211109_SP18-345_US_Assignment_signed#page11.tif
source=20211109_SP18-345_US_Assignment_signed#page12.tif

ASSIGNMENT

FOR good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned ("Assignor") hereby sells, assigns, and transfers unto CORNING INCORPORATED, a corporation located at One Riverfront Plaza, Corning, N.Y. 14831, ("CORNING"), its successors, assigns, and legal representatives, Assignor's entire right, title, and interest, including the right to claim priority, for the United States and its territorial possessions and in any and all other countries and territories in the world, in and to inventions, ideas, improvements, or other contributions ("Inventions") set forth and disclosed in the following Invention Disclosure and/or Patent Application of the United States or other country, where Assignor authorizes CORNING's attorney or paralegal to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other patent office for recordation of this document:

<i>Document No.</i>	17/276856
<i>Title</i>	RARE-EARTH DOPED METAL OXIDE CERAMIC WAVEGUIDE QUANTUM MEMORIES AND METHODS OF MANUFACTURING THE SAME
<i>Filing Date</i>	03/17/2021
<i>Jurisdiction</i>	United States

as well as any patent applications in the United States or elsewhere in the world (A) claiming benefit of the filing date of the above identified Patent Application or (B) related to the above identified Patent Application by a common priority claim (e.g., divisional, continuation, continuation-in-part, utility model, design patent applications, registrations, reissues, reexaminations, or extensions thereof) or (C) containing overlapping subject matter with the above Invention Disclosure or Patent Application, and all the rights and privileges under any and all Letters Patents that may be granted therefrom. These rights and privileges include, but are not limited to, all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements, as well as any proceedings before an adjudicative body within the United States or elsewhere in the world involving such Inventions.

Assignor agrees that any and all patents for said Inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate. Assignor agrees that, when requested, Assignor will, without further compensation from CORNING, but at CORNING's expense (e.g., mailing costs, notarization fees, governmental fees), sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other intellectual property for said Inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees. Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment.

Assignor expressly assigns the rights to, authorizes and empowers CORNING, its successors, assigns or nominees, to invoke and claim for any application for patent or other form of protection for said Inventions filed by CORNING, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document, which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees, to claim the aforesaid benefit of the right of priority provided by the International Convention

for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.

Assignor covenants with CORNING, its successors, assigns and legal representatives or nominees, that Assignor believes and to the best of Assignor's knowledge the rights and property herein conveyed are free and clear of any and all liens, restrictions, claims, and encumbrances, and that Assignor has full right to convey the same as herein expressed.

This Assignment shall be construed, interpreted, and applied in accordance with the laws of the State of New York, United States without regard to its conflicts of law principles.

Notary Option

Signed, this

27th October 2021

Date

Bruce Gardiner Aitken
Bruce Gardiner Aitken

State of N.Y.)

County of Steuben)^{ss.}

On the 27 day of October 2021, before me personally came Assignor known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same.

LuAnne Wheeler
Notary Public, State of New York
Qualified in Steuben County, No. 01WH6338409
My Commission Expires March 14, 2024

LuAnne Wheeler
Notary Public

Witness Signature Option (if Notary is unavailable)

Witness Signature

Date

Witness Printed Name

Assignee Acknowledgement of Receipt

Thomas R. Beall, Vice President and Chief IP Counsel

Date

ASSIGNMENT

FOR good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned ("Assignor") hereby sells, assigns, and transfers unto CORNING INCORPORATED, a corporation located at One Riverfront Plaza, Corning, N.Y. 14831, ("CORNING"), its successors, assigns, and legal representatives, Assignor's entire right, title, and interest, including the right to claim priority, for the United States and its territorial possessions and in any and all other countries and territories in the world, in and to inventions, ideas, improvements, or other contributions ("Inventions") set forth and disclosed in the following Invention Disclosure and/or Patent Application of the United States or other country, where Assignor authorizes CORNING's attorney or paralegal to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other patent office for recordation of this document:

<i>Document No.</i>	17/276856
<i>Title</i>	RARE-EARTH DOPED METAL OXIDE CERAMIC WAVEGUIDE QUANTUM MEMORIES AND METHODS OF MANUFACTURING THE SAME
<i>Filing Date</i>	03/17/2021
<i>Jurisdiction</i>	United States

as well as any patent applications in the United States or elsewhere in the world (A) claiming benefit of the filing date of the above identified Patent Application or (B) related to the above identified Patent Application by a common priority claim (e.g., divisional, continuation, continuation-in-part, utility model, design patent applications, registrations, reissues, reexaminations, or extensions thereof) or (C) containing overlapping subject matter with the above Invention Disclosure or Patent Application, and all the rights and privileges under any and all Letters Patents that may be granted therefrom. These rights and privileges include, but are not limited to, all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements, as well as any proceedings before an adjudicative body within the United States or elsewhere in the world involving such Inventions.

Assignor agrees that any and all patents for said Inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate. Assignor agrees that, when requested, Assignor will, without further compensation from CORNING, but at CORNING's expense (e.g., mailing costs, notarization fees, governmental fees), sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other intellectual property for said Inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees. Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment.

Assignor expressly assigns the rights to, authorizes and empowers CORNING, its successors, assigns or nominees, to invoke and claim for any application for patent or other form of protection for said Inventions filed by CORNING, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document, which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees, to claim the aforesaid benefit of the right of priority provided by the International Convention

for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.


Assignor covenants with CORNING, its successors, assigns and legal representatives or nominees, that Assignor believes and to the best of Assignor's knowledge the rights and property herein conveyed are free and clear of any and all liens, restrictions, claims, and encumbrances, and that Assignor has full right to convey the same as herein expressed.

This Assignment shall be construed, interpreted, and applied in accordance with the laws of the State of New York, United States without regard to its conflicts of law principles.

Notary Option

Signed, this

10/29/2021
Date


Sean Matthew Garner

State of N.Y.

County of Steuben^{ss.}

On the 29 day of October 2021, before me personally came Assignor known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same.

LuAnne Wheeler
Notary Public, State of New York
Qualified in Steuben County, No. 01WH6338409
My Commission Expires March 14, 2024


Notary Public

Witness Signature Option (if Notary is unavailable)

Witness Signature Date

Witness Printed Name

Assignee Acknowledgement of Receipt

Thomas R. Beall, Vice President and Chief IP Counsel Date

ASSIGNMENT

FOR good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned ("Assignor") hereby sells, assigns, and transfers unto CORNING INCORPORATED, a corporation located at One Riverfront Plaza, Corning, N.Y. 14831, ("CORNING"), its successors, assigns, and legal representatives, Assignor's entire right, title, and interest, including the right to claim priority, for the United States and its territorial possessions and in any and all other countries and territories in the world, in and to inventions, ideas, improvements, or other contributions ("Inventions") set forth and disclosed in the following Invention Disclosure and/or Patent Application of the United States or other country, where Assignor authorizes CORNING's attorney or paralegal to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other patent office for recordation of this document:

<i>Document No.</i>	17/276856
<i>Title</i>	RARE-EARTH DOPED METAL OXIDE CERAMIC WAVEGUIDE QUANTUM MEMORIES AND METHODS OF MANUFACTURING THE SAME
<i>Filing Date</i>	03/17/2021
<i>Jurisdiction</i>	United States

as well as any patent applications in the United States or elsewhere in the world (A) claiming benefit of the filing date of the above identified Patent Application or (B) related to the above identified Patent Application by a common priority claim (e.g., divisional, continuation, continuation-in-part, utility model, design patent applications, registrations, reissues, reexaminations, or extensions thereof) or (C) containing overlapping subject matter with the above Invention Disclosure or Patent Application, and all the rights and privileges under any and all Letters Patents that may be granted therefrom. These rights and privileges include, but are not limited to, all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements, as well as any proceedings before an adjudicative body within the United States or elsewhere in the world involving such Inventions.

Assignor agrees that any and all patents for said Inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate. Assignor agrees that, when requested, Assignor will, without further compensation from CORNING, but at CORNING's expense (e.g., mailing costs, notarization fees, governmental fees), sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other intellectual property for said Inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees. Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment.

Assignor expressly assigns the rights to, authorizes and empowers CORNING, its successors, assigns or nominees, to invoke and claim for any application for patent or other form of protection for said Inventions filed by CORNING, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document, which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees, to claim the aforesaid benefit of the right of priority provided by the International Convention

for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.

Assignor covenants with CORNING, its successors, assigns and legal representatives or nominees, that Assignor believes and to the best of Assignor's knowledge the rights and property herein conveyed are free and clear of any and all liens, restrictions, claims, and encumbrances, and that Assignor has full right to convey the same as herein expressed.

This Assignment shall be construed, interpreted, and applied in accordance with the laws of the State of New York, United States without regard to its conflicts of law principles.

Notary Option

Signed, this

11/08/2021

Date

Thomas Dale Ketcham
Thomas Dale Ketcham

State of New York
ss.

County of Steuben

On the 8 day of November 2021, before me personally came Assignor known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same.

by Anne Wheeler
Notary Public, State of New York
Commission No. 01WH5338409
Commission Expires March 14, 2024

Anne Wheeler
Notary Public

Witness Signature Option (if Notary is unavailable)

Witness Signature

Date

Witness Printed Name

Assignee Acknowledgement of Receipt

Thomas R. Beall, Vice President and Chief IP Counsel

Date

ASSIGNMENT

FOR good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned ("Assignor") hereby sells, assigns, and transfers unto CORNING INCORPORATED, a corporation located at One Riverfront Plaza, Corning, N.Y. 14831, ("CORNING"), its successors, assigns, and legal representatives, Assignor's entire right, title, and interest, including the right to claim priority, for the United States and its territorial possessions and in any and all other countries and territories in the world, in and to inventions, ideas, improvements, or other contributions ("Inventions") set forth and disclosed in the following Invention Disclosure and/or Patent Application of the United States or other country, where Assignor authorizes CORNING's attorney or paralegal to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other patent office for recordation of this document:

<i>Document No.</i>	17/276856
<i>Title</i>	RARE-EARTH DOPED METAL OXIDE CERAMIC WAVEGUIDE QUANTUM MEMORIES AND METHODS OF MANUFACTURING THE SAME
<i>Filing Date</i>	03/17/2021
<i>Jurisdiction</i>	United States

as well as any patent applications in the United States or elsewhere in the world (A) claiming benefit of the filing date of the above identified Patent Application or (B) related to the above identified Patent Application by a common priority claim (e.g., divisional, continuation, continuation-in-part, utility model, design patent applications, registrations, reissues, reexaminations, or extensions thereof) or (C) containing overlapping subject matter with the above Invention Disclosure or Patent Application, and all the rights and privileges under any and all Letters Patents that may be granted therefrom. These rights and privileges include, but are not limited to, all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements, as well as any proceedings before an adjudicative body within the United States or elsewhere in the world involving such Inventions.

Assignor agrees that any and all patents for said Inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate. Assignor agrees that, when requested, Assignor will, without further compensation from CORNING, but at CORNING's expense (e.g., mailing costs, notarization fees, governmental fees), sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other intellectual property for said Inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees. Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment.

Assignor expressly assigns the rights to, authorizes and empowers CORNING, its successors, assigns or nominees, to invoke and claim for any application for patent or other form of protection for said Inventions filed by CORNING, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document, which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees, to claim the aforesaid benefit of the right of priority provided by the International Convention

for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.

Assignor covenants with CORNING, its successors, assigns and legal representatives or nominees, that Assignor believes and to the best of Assignor's knowledge the rights and property herein conveyed are free and clear of any and all liens, restrictions, claims, and encumbrances, and that Assignor has full right to convey the same as herein expressed.

This Assignment shall be construed, interpreted, and applied in accordance with the laws of the State of New York, United States without regard to its conflicts of law principles.

Notary Option

Signed, this

10/27/21
Date

Daniel Aloysius Nolan
Daniel Aloysius Nolan

State of NY)

: ss.

County of Steuben)

On the 27th day of October, 2021, before me personally came Assignor known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same.

Dianna L. Green
Notary Public

Witness Signature Option (if Notary is unavailable)

DIANNA L. GREEN
Notary Public, State of NY
Steuben Co., No. 01GR6061934
Commission Exp. July 23, 2025

Witness Signature

Date

Witness Printed Name

Assignee Acknowledgement of Receipt

Thomas R. Beall, Vice President and Chief IP Counsel

Date

ASSIGNMENT

FOR good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned ("Assignor") hereby sells, assigns, and transfers unto CORNING INCORPORATED, a corporation located at One Riverfront Plaza, Corning, N.Y. 14831, ("CORNING"), its successors, assigns, and legal representatives, Assignor's entire right, title, and interest, including the right to claim priority, for the United States and its territorial possessions and in any and all other countries and territories in the world, in and to inventions, ideas, improvements, or other contributions ("Inventions") set forth and disclosed in the following Invention Disclosure and/or Patent Application of the United States or other country, where Assignor authorizes CORNING's attorney or paralegal to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other patent office for recordation of this document:

<i>Document No.</i>	17/276856
<i>Title</i>	RARE-EARTH DOPED METAL OXIDE CERAMIC WAVEGUIDE QUANTUM MEMORIES AND METHODS OF MANUFACTURING THE SAME
<i>Filing Date</i>	03/17/2021
<i>Jurisdiction</i>	United States

as well as any patent applications in the United States or elsewhere in the world (A) claiming benefit of the filing date of the above identified Patent Application or (B) related to the above identified Patent Application by a common priority claim (e.g., divisional, continuation, continuation-in-part, utility model, design patent applications, registrations, reissues, reexaminations, or extensions thereof) or (C) containing overlapping subject matter with the above Invention Disclosure or Patent Application, and all the rights and privileges under any and all Letters Patents that may be granted therefrom. These rights and privileges include, but are not limited to, all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements, as well as any proceedings before an adjudicative body within the United States or elsewhere in the world involving such Inventions.

Assignor agrees that any and all patents for said Inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate. Assignor agrees that, when requested, Assignor will, without further compensation from CORNING, but at CORNING's expense (e.g., mailing costs, notarization fees, governmental fees), sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other intellectual property for said Inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees. Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment.

Assignor expressly assigns the rights to, authorizes and empowers CORNING, its successors, assigns or nominees, to invoke and claim for any application for patent or other form of protection for said Inventions filed by CORNING, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document, which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees, to claim the aforesaid benefit of the right of priority provided by the International Convention

for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.

Assignor covenants with CORNING, its successors, assigns and legal representatives or nominees, that Assignor believes and to the best of Assignor's knowledge the rights and property herein conveyed are free and clear of any and all liens, restrictions, claims, and encumbrances, and that Assignor has full right to convey the same as herein expressed.

This Assignment shall be construed, interpreted, and applied in accordance with the laws of the State of New York, United States without regard to its conflicts of law principles.

Notary Option

Signed, this

10/27/2024
Date

Jun Yang
Jun Yang

State of N.Y.

County of Steuben : ss.

On the 27 day of October 2024, before me personally came Assignor known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same.

LuAnne Wheeler
Notary Public, State of New York
Qualified in Steuben County, No. 01WH6338409
My Commission Expires March 14, 2024

LuAnne Wheeler
Notary Public

Witness Signature Option (if Notary is unavailable)

Witness Signature Date

Witness Printed Name

Assignee Acknowledgement of Receipt

Thomas R. Beall, Vice President and Chief IP Counsel Date

ASSIGNMENT

FOR good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the undersigned ("Assignor") hereby sells, assigns, and transfers unto CORNING INCORPORATED, a corporation located at One Riverfront Plaza, Corning, N.Y. 14831, ("CORNING"), its successors, assigns, and legal representatives, Assignor's entire right, title, and interest, including the right to claim priority, for the United States and its territorial possessions and in any and all other countries and territories in the world, in and to inventions, ideas, improvements, or other contributions ("Inventions") set forth and disclosed in the following Invention Disclosure and/or Patent Application of the United States or other country, where Assignor authorizes CORNING's attorney or paralegal to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other patent office for recordation of this document:

<i>Document No.</i>	17/276856
<i>Title</i>	RARE-EARTH DOPED METAL OXIDE CERAMIC WAVEGUIDE QUANTUM MEMORIES AND METHODS OF MANUFACTURING THE SAME
<i>Filing Date</i>	03/17/2021
<i>Jurisdiction</i>	United States

as well as any patent applications in the United States or elsewhere in the world (A) claiming benefit of the filing date of the above identified Patent Application or (B) related to the above identified Patent Application by a common priority claim (e.g., divisional, continuation, continuation-in-part, utility model, design patent applications, registrations, reissues, reexaminations, or extensions thereof) or (C) containing overlapping subject matter with the above Invention Disclosure or Patent Application, and all the rights and privileges under any and all Letters Patents that may be granted therefrom. These rights and privileges include, but are not limited to, all rights of registration, maintenance, and protection thereof in any form, all rights to income, royalties, damages and payments now due or hereafter due or payable in respect thereto, and all rights of recovery and of legal action for past or future infringements, as well as any proceedings before an adjudicative body within the United States or elsewhere in the world involving such Inventions.

Assignor agrees that any and all patents for said Inventions be issued to CORNING, its successors, assigns and legal representatives, or to such nominees as CORNING may designate. Assignor agrees that, when requested, Assignor will, without further compensation from CORNING, but at CORNING's expense (e.g., mailing costs, notarization fees, governmental fees), sign all papers, take all rightful oaths, and do all acts which may be necessary, desirable, or convenient for securing and maintaining patents or other intellectual property for said Inventions in any and all countries and for vesting title thereto in CORNING, its successors, assigns and legal representatives or nominees. Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment.

Assignor expressly assigns the rights to, authorizes and empowers CORNING, its successors, assigns or nominees, to invoke and claim for any application for patent or other form of protection for said Inventions filed by CORNING, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for said Convention or entered as a supplement to, and to invoke and claim such right of priority without further written or oral authorization.

Assignor hereby consents that a copy of this Assignment shall be deemed a full legal and formal equivalent of any assignment, consent to file or like document, which may be required in any country for any purpose and more particularly in proof of the right of CORNING, or its successors, assigns and legal representatives or nominees, to claim the aforesaid benefit of the right of priority provided by the International Convention

for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it or entered as a supplement to it.

Assignor covenants with CORNING, its successors, assigns and legal representatives or nominees, that Assignor believes and to the best of Assignor's knowledge the rights and property herein conveyed are free and clear of any and all liens, restrictions, claims, and encumbrances, and that Assignor has full right to convey the same as herein expressed.

This Assignment shall be construed, interpreted, and applied in accordance with the laws of the State of New York, United States without regard to its conflicts of law principles.

Notary Option

Signed, this

11/04/2021
Date

Haitao Zhang
Haitao Zhang

State of New York
: ss.

County of Steuben

On the 4th day of November, 2021, before me personally came Assignor known to be the person described in and who executed the foregoing instrument and acknowledged that they executed the same.

Dianna L. Green
Notary Public

Witness Signature Option (if Notary is unavailable)

DIANNA L. GREEN
Notary Public, State of NY
Steuben Co., No. 01GR6061934
Commission Exp. July 23, 2025

Witness Signature

Date

Witness Printed Name

Assignee Acknowledgement of Receipt

Thomas R. Beall, Vice President and Chief IP Counsel

Date