

Industria y Comercio

SUPERINTENDENCIA

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

No. 13-200299- -00005-0000

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Dep. 2020 DIR.NUEVASCR

Tra. 11 PATENTEIYII

Eve: 378 FASENACIONALI

Act. 457 PROCEDIPPH

Folios: 28

DIRECCIÓN DE NUEVAS CREACIONES

Procedimiento acelerado de exámenes de patente (PPH)

1	NÚMERO DE SOLICITUD ANTE LA SIC	13200299		
2	OFICINA DE PRIMERA PRESENTACIÓN (OPP)	ESTADOS UNIDOS DE AMERICA		
3	NÚMERO(S) DE SOLICITUD O PUBLICACIÓN DE LA(S) SOLICITUD(ES) (OPP):	1.13/587,476 2. 3.		
4	☐ REPRESENTANTE LEGAL ☐ APODERADO			
APELLIDOS		IDENTIFICACIÓN		
LOPEZ DÍAZ		T.P.		
NOMBRES		C.C.X		
SILVANA MARIA				
DIRECCIÓN	Carrera 11 No. 86-53 Piso 6	No. TELÉFONO	618 10 88	
CIUDAD	Bogotá	CORREO ELECTRÓNICO	notificaciones@clarquemodet.com.co	
PAÍS	COLOMBIA	No. RADICACIÓN O PROTOCOLO DE PODER GENERAL		
5	CONDICIONES PARA ACCEDER A ESTE PROCESO:			
5.1.	DATOS DE PRIORIDAD ☐ SI ☐ NO			
(33) PAÍS DE ORIGEN		CÓDIGO PAÍS	(31) NÚMERO	
1. 2. 3.			(32) FECHA (AAAA/MM/DD)	
5.2.	DATOS SOLICITUD INTERNACIONAL PCT ☒ SI ☐ NO			
Solicitud Internacional No.		PCT/ US2012/022445	Fecha	24/01/2012
Publicación Internacional No.		WO 2012/103152	Fecha	02/08/2012
El solicitante presenta una copia de la(s) reivindicación(es) patentable(s) u otorgable(s) de la solicitud de la Oficina de Primera Presentación que profirió el examen de patentabilidad, junto con una traducción al castellano. ☒ SI ☐ NO				
REQUISITOS PARA EL RECONOCIMIENTO DE LOS RESULTADOS DE EXÁMENES DE PATENTABILIDAD EFECTUADOS A SOLICITUDES EXTRANJERAS				
Para que la Superintendencia de Industria y Comercio pueda reconocer los resultados de exámenes de patentabilidad producidos por otras Oficinas de Propiedad Industrial se debe cumplir con las siguientes condiciones:				
(a) Al momento de solicitar el examen de patentabilidad, si el solicitante pide que se reconozcan exámenes de patentabilidad de otras oficinas extranjeras, deberá aportar junto con el pago de la tasa correspondiente, los siguientes anexos:				
(i) Copia de las resoluciones, fallos o decisiones que han sido relevantes para la determinación de la patentabilidad de la(s) solicitud(es) en la Oficina que haya proferido el examen de patentabilidad que contienen reivindicaciones patentables u otorgables que son la base de la petición, y si es del caso, su traducción al castellano. ☒ SI ☐ NO				
(ii) Copia de todas las reivindicaciones determinadas como patentables u otorgables en la Oficina que profirió el examen de patentabilidad y, si es del caso, su traducción al castellano. ☒ SI ☐ NO				
(iii) Copia de los antecedentes, información o documentos citados por el examinador de la Oficina de Primera Presentación del examen de patentabilidad, en las resoluciones, fallos o decisiones correspondientes, incluyendo la literatura no patente. Los documentos de patente deberán presentarse siempre y cuando no estén disponibles para la Superintendencia de Industria y Comercio mediante el simple acceso a bases de datos gratuitas. ☒ SI ☐ NO				
(iv) Una tabla de correspondencias de las reivindicaciones que han sido determinadas como patentables u otorgables en la solicitud de la Oficina que haya proferido el examen de patentabilidad.				
7	FIRMA DEL SOLICITANTE, DEL APODERADO O DEL REPRESENTANTE LEGAL			
Junto a cada firma, indicar el nombre del firmante y su calidad (si tal calidad no es obvia al leer el petitorio)				



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

67395 7590 01/15/2014
GREENBERG TRAURIG (NJ)
200 PARK AVE.
P.O. BOX 677
FLORHAM PARK, NJ 07932

EXAMINER	
NGUYEN, TUYEN T	
ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 01/15/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,476	01/24/2012	Todd Shudarek	102146.011101	3255

TITLE OF INVENTION: HARMONIC MITIGATION DEVICES AND APPLICATIONS THEREOF

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	04/15/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67395 7590 01/15/2014
GREENBERG TRAUIG (NJ)
200 PARK AVE.
P.O. BOX 677
FLORHAM PARK, NJ 07932

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,476	01/24/2012	Todd Shudarek	102146.011101	3255

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APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	04/15/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, TUYEN T	2837	336-179000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a **Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1	_____
2	_____
3	_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

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13/357,476	01/24/2012	Todd Shudarek	102146.011101	3255

EXAMINER	
NGUYEN, TUYEN T	

ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 01/15/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

4

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 13/357,476	Applicant(s) SHUDAREK ET AL.	
	Examiner TUYEN NGUYEN	Art Unit 2837	AIA (First Inventor to File) Status No

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address–

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 10/22/2013.
☐ A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-14. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:
a) ☐ All b) ☐ Some *c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____	6. ☐ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	7. ☐ Other _____
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____	

/TUYEN NGUYEN/ Primary Examiner, Art Unit 2837	
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UNITED STATES DEPARTMENT OF COMMERCE
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BIB DATA SHEET

CONFIRMATION NO. 3255

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.		
13/357,476	01/24/2012	336	2837	102146.011101		
APPLICANTS INVENTORS Todd Shudarek, West Bend, WI; Wayne Walcott, Hartland, WI; Wesley Ruther, Fredonia, WI; ** CONTINUING DATA ***** This appln claims benefit of 61/435,520 01/24/2011 and claims benefit of 61/450,693 03/09/2011 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 02/03/2012						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/TUYEN T NGUYEN/</u> Examiner's Signature		☐ Met after Allowance <u>/TN/</u> Initials	STATE OR COUNTRY WI	SHEETS DRAWINGS 43	TOTAL CLAIMS 18	INDEPENDENT CLAIMS 1
ADDRESS GREENBERG TRAURIG (NJ) 200 PARK AVE. P.O. BOX 677 FLORHAM PARK, NJ 07932 UNITED STATES						
TITLE HARMONIC MITIGATION DEVICES AND APPLICATIONS THEREOF						
FILING FEE RECEIVED 1380	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees			
			☐ 1.16 Fees (Filing)			
			☐ 1.17 Fees (Processing Ext. of time)			
			☐ 1.18 Fees (Issue)			
			☐ Other _____			
			☐ Credit			

Issue Classification 	Application/Control No. 13/357,476	Applicant(s)/Patent under Reexamination SHUDAREK ET AL.	
	Examiner TUYEN NGUYEN	Art Unit 2837	

ISSUE CLASSIFICATION												
ORIGINAL					CROSS REFERENCE(S)							
CLASS		SUBCLASS			CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)						
336		212										
INTERNATIONAL CLASSIFICATION												
H	O	I	F									
				27/24								
				/								
				/								
				/								
				/								
none (Assistant Examiner) (Date)					/Tuyen Nguyen/ Primary Examiner 12/28/2013 (Primary Examiner) (Date)					Total Claims Allowed: 14		
(Legal Instruments Examiner) (Date)										O.G. Print Claim(s) 1	O.G. Print Fig. 2A	

☒ Claims renumbered in the same order as presented by applicant						☐ CPA		☐ T.D.		☐ R.1.47	
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		31		61		91		121		151
	2		32		62		92		122		152
	3		33		63		93		123		153
	4		34		64		94		124		154
	5		35		65		95		125		155
	6		36		66		96		126		156
	7		37		67		97		127		157
	8		38		68		98		128		158
	9		39		69		99		129		159
	10		40		70		100		130		160
	11		41		71		101		131		161
	12		42		72		102		132		162
	13		43		73		103		133		163
	14		44		74		104		134		164
	15		45		75		105		135		165
	16		46		76		106		136		166
	17		47		77		107		137		167
	18		48		78		108		138		168
	19		49		79		109		139		169
	20		50		80		110		140		170
	21		51		81		111		141		171
	22		52		82		112		142		172
	23		53		83		113		143		173
	24		54		84		114		144		174
	25		55		85		115		145		175
	26		56		86		116		146		176
	27		57		87		117		147		177
	28		58		88		118		148		178
	29		59		89		119		149		179
	30		60		90		120		150		180
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Search Notes 		Application/Control No. 13/357,476	Applicant(s)/Patent under Reexamination SHUDAREK ET AL.	
		Examiner TUYEN NGUYEN	Art Unit 2837	

SEARCHED			
Class	Subclass	Date	Examiner
336	200, 212, 178, 232	12/28/2013	TN

INTERFERENCE SEARCHED			
Class	Subclass	Date	Examiner
same as above		12/28/2013	TN

SEARCH NOTES (INCLUDING SEARCH STRATEGY)		
	DATE	EXMR

9



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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NOTICE OF ALLOWANCE AND FEE(S) DUE

67395 7590 01/15/2014
GREENBERG TRAURIG (NJ)
200 PARK AVE.
P.O. BOX 677
FLORHAM PARK, NJ 07932

EXAMINER

NGUYEN, TUYEN T

ART UNIT PAPER NUMBER

2837

DATE MAILED: 01/15/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,476	01/24/2012	Todd Shudarek	102146.011101	3255

TITLE OF INVENTION: HARMONIC MITIGATION DEVICES AND APPLICATIONS THEREOF

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	04/15/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or **Fax** (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

67395 7590 01/15/2014
GREENBERG TRAURIG (NJ)
200 PARK AVE.
P.O. BOX 677
FLORHAM PARK, NJ 07932

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

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APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	\$960	\$0	\$0	\$960	04/15/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, TUYEN T	2837	336-179000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
☐ Applicant asserting small entity status. See 37 CFR 1.27
☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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13/357,476	01/24/2012	Todd Shudarek	102146.011101	3255
67395 7590 01/15/2014 GREENBERG TRAURIG (NJ) 200 PARK AVE. P.O. BOX 677 FLORHAM PARK, NJ 07932				
EXAMINER NGUYEN, TUYEN T				
ART UNIT		PAPER NUMBER		
2837				

DATE MAILED: 01/15/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 13/357,476	Applicant(s) SHUDAREK ET AL.	
	Examiner TUYEN NGUYEN	Art Unit 2837	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 10/22/2013.
☐ A declaration(s)/affidavit(s) under 37 CFR 1.130(b) was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-14. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some *c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____	6. ☐ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	7. ☐ Other _____
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____	

/TUYEN NGUYEN/ Primary Examiner, Art Unit 2837	
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**REIVINDICACIONES OTORGADAS USPTO
(US 8,692,644)**

1. Un inductor que comprende:

al menos una pieza de entrehierro de núcleo de alta permeabilidad (FAP) posicionada dentro del núcleo de un inductor, de tal manera que al menos una trayectoria de flujo magnético del núcleo del inductor pase a través de al menos una FAP;

en donde el al menos una FAP tiene una permeabilidad magnética efectiva que es al menos 1000 veces mayor que la permeabilidad del aire y varía de tal modo que resulta en al menos una FAP que es capaz de afectar la inductancia del inductor, basado en, al menos una parte, en la permeabilidad magnética efectiva de la menos una FAP, en donde la permeabilidad magnética efectiva cambia con base, al menos en parte, en los siguientes factores:

- i) al menos un flujo magnético, y
- ii) calentamiento suficiente de al menos un FAP.

2. El inductor de acuerdo a la reivindicación 1, en donde el calentamiento suficiente se debe una temperatura Curie de al menos una FAP.

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3. El inductor de acuerdo a la reivindicación 2, en donde el inductor además comprende al menos una pieza de entrehierro metálica (MAP), en donde al menos una MAP se ubica:

i) dentro del núcleo del inductor de tal manera que al menos un flujo magnético pase a través de al menos una MAP, y

ii) en una proximidad suficiente de al menos una FAP, en donde al menos una MAP es capaz de ser calentada cuando al menos un flujo magnético pase a través de al menos una MAP; y

en donde el al menos una MAP es capaz de causar, cuando esta calentada, el calentamiento suficiente de al menos una FAP.

4. El inductor de acuerdo con la reivindicación 3, en donde el inductor además comprende al menos un aislante, en donde el aislante es:

i) una MAP de baja permeabilidad,

ii) está localizado dentro del núcleo del inductor del tal manera que al menos un flujo magnético del núcleo del inductor pase a través del aislante, y

iii) es capaz de afectar la inductancia del inductor.

5. El inductor de acuerdo a la reivindicación 1, en donde al menos una FAP comprende al menos un material de ferrita.

OK for enter
/TN/
2/28/2014

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Shudarek et al.	:	Group Art Unit: 2832
Serial No.: 13/357,476	:	Examiner: Tuyen Nguyen
Filed: January 24, 2012	:	Attorney Docket No.: 102146.011101
For: HARMONIC MITIGATION DEVICES AND APPLICATIONS THEREOF	:	

**AMENDMENT PURSUANT 37 CFR 1.312 AFTER JANUARY 15, 2014 NOTICE OF
ALLOWANCE**

Mail Stop Issue Fee
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Amendment is filed to correct typographical and/or antecedent basis errors, and with a payment of issue fees. If any fees are outstanding in connection with this filing, please charge to the deposit account 50-1561, using as reference 102146.011101.

Applicants request entry and consideration of the following:

Amendment to the Specification, beginning on page 2 of this paper;

Amendment to the Claims, beginning on page 3 of this paper; and

Remarks, beginning on page 6 of this paper.

AMENDMENTS TO THE SPECIFICATION:

1) Please amend Paragraph 11 on page 2 as follows:

[0011] In some embodiments, where the at least one FAP comprises at least one molypermalloy power material.

2) Please amend Paragraph 12 on page 2 as follows:

[0012] In some embodiments, where the at least one molypermalloy power material contains at least 50 percent weight of Nickel, at least 20 percent weight of Iron, and the balance comprising another suitable material.

3) Please amend Paragraph 154 on page 30 as follows:

[00154] In some embodiments, where the at least one FAP comprises at least one molypermalloy power material.

4) Please amend Paragraph 155 on page 30 as follows:

[00155] In some embodiments, where the at least one molypermalloy power material contains at least 50 percent weight of Nickel, at least 20 percent weight of Iron, and the balance comprising another suitable material.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing Of Claims:

1. (Previously presented) An inductor, comprising:

at least one high permeability core gap piece positioned within a core of the inductor such that at least one magnetic flux path of the core of the inductor passes through the at least one high permeability core gap piece;

wherein the at least one high permeability core gap piece has an effective magnetic permeability that is at least 1000 times greater than a permeability of air and varies so as to result in the at least one high permeability core gap piece is capable of affecting an inductance of the inductor based on, at least in part, on the effective magnetic permeability of the at least one high permeability core gap piece, wherein the effective magnetic permeability changes based, at least in part, on the following factors:

i) at least one magnetic flux, and

ii) sufficient heating of the at least one high permeability core gap piece.

2. (Previously presented) The inductor of claim 1, wherein the sufficient heating is to a Curie temperature of the at least one high permeability core gap piece.

3. (Currently Amended) The inductor of claim 2, wherein the inductor further comprises at least one metallic gap piece, wherein the at least one metallic gap piece is located:

i) within the core of the inductor such that the at least one magnetic flux passes through the at least one metallic gap piece, and

ii) in sufficient proximity to the at least one high permeability core gap piece,

wherein the at least one metallic gap piece is capable of being heated when the at least one magnetic flux passes through the at least one metallic gap piece; and

wherein the at least one metallic gap piece is capable of causing, when being heated, the sufficient heating of the at least one high permeability core gap piece.

4. (Previously presented) The inductor of claim 3, wherein the inductor further comprises at least one insulator, wherein the at least one insulator is:

- i) a low permeability non-metallic core gap piece,
- ii) positioned within the core of the inductor such that the at least one magnetic flux of the core of the inductor passes through the at least one insulator, and
- iii) is capable of affecting an inductance of the inductor.

5. (Currently Amended) The inductor of claim 1, wherein the at least one high permeability core gap piece comprises at least one soft ferrite material.

6. (Original) The inductor of claim 5, wherein the at least one soft ferrite material is selected from a group consisted of Nickel-Zinc ferrite material, Magnesium-Zinc ferrite material, and Manganese-Zinc ferrite material.

7. (Previously presented) The inductor of claim 1, wherein the at least one high permeability core gap piece comprises at least one material having suitable relative permeability in a range between 14 to 550.

8. (Currently Amended) The inductor of claim 1, wherein the at least one high permeability core gap piece comprises at least one molypermalloy power material.

9. (Currently Amended) The inductor of claim 8, wherein the at least one molypermalloy power material contains at least 50 percent weight of Nickel, at least 20 percent weight of Iron, and the balance comprising another suitable material.

10. (Original) The inductor of claim 2, wherein the Curie temperature is between about 130 and about 1200 degrees Celsius.

11. (Original) The inductor of claim 6, wherein the Curie temperature is about 200 degrees Celsius.

12. (Withdrawn) The inductor of claim 1, wherein the at least one FAP comprises at least one first FAP part and at least one second FAP part wherein the at least one first FAP part and the at least one second FAP part are separate structures.

13. (Withdrawn) The inductor of claim 12, wherein the at least one first FAP part differs from the at least one second FAP part in at least one of the followings characteristics: composition, size, and shape.

14. (Withdrawn) The inductor of claim 13, wherein the at least one first FAP part has a first shape and the at least one second FAP part has a second shape, and wherein the first shape is complementary to the second shape such that the at least one first FAP part interlocks with the at least one second FAP part to assemble the at least one FAP.

15-18. Cancelled.

REMARKS:

Claims 1-11 have been allowed. Claims 3, 5, and 8-9 have been amended hereby.

It is respectfully noted that this Amendment is fully supported by the originally filed application. For example, the above detailed amendments are supported by paragraphs 79 and 91, and the original claim 6 of this Application. Thus, no new matter has been added. For this reason, the Amendment should be entered.

Favorable consideration is earnestly solicited.

Respectfully submitted,
GREENBERG TRAURIG, LLP

Dated: January 27, 2014

/Lennie A. Bersh/
Lennie A. Bersh
Registration No. 55,000

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Notice of References Cited	Application/Control No. 13/357,476	Applicant(s)/Patent Under Reexamination SHUDAREK ET AL.	
	Examiner TUYEN NGUYEN	Art Unit 2832	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2006/0250207	11-2006	Shudarek, Todd A.	336/212
*	B	US-3,659,191	04-1972	Spreadbury, Robert J.	323/248
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

23

Doc code: IDS

Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13357476	
	Filing Date		2012-01-24	
	First Named Inventor	Todd Shudarek		
	Art Unit	2832		
	Examiner Name	Tuyen T. Nguyen		
	Attorney Docket Number	102146.011101		

U.S.PATENTS						
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	1	5774311	A	1998-06-30	Gooch	

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	1	20090295524	A1	2009-12-03	Silva	
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	1	11-224817	JP	A	1999-08-17	Murata MFG Co Ltd		☒

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		13357476
	Filing Date		2012-01-24
	First Named Inventor	Todd Shudarek	
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	1	International Search Report and Written Opinion issued in International Application No. PCT/US2012/02245 dated September 27, 2012	☐
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6 TABLA DE CORRESPONDENCIA DE REIVINDICACIONES		
Reivindicaciones en la solicitud en Colombia	Reivindicaciones otorgables en la solicitud internacional	Explicación sobre la suficiente correspondencia ó Comentarios que explican la correspondencia
1. Un inductor que comprende: por lo menos una FAP colocada a lo largo de por lo menos una trayectoria de flujo magnético; donde por lo menos una FAP es una pieza de entrehierro de núcleo de alta permeabilidad; y en donde por lo menos una FAP tiene una permeabilidad magnética eficaz que varía con base a por lo menos en parte, en uno de los siguientes factores: i) al menos un flujo magnético a través de por lo menos una FAP, y ii) suficiente calor de por lo menos una FAP.	1. Un inductor que comprende: al menos una pieza de entrehierro de núcleo de alta permeabilidad (FAP) posicionada dentro del núcleo de un inductor, de tal manera que al menos una trayectoria de flujo magnético del núcleo del inductor pase a través de al menos una FAP; en donde el al menos una FAP tiene una permeabilidad magnética efectiva que es al menos 1000 veces mayor que la permeabilidad del aire y varía de tal modo que resulta en al menos una FAP que es capaz de afectar la inductancia del inductor, basado en, al menos una parte, en la permeabilidad magnética efectiva de la menos una FAP, en donde la permeabilidad magnética efectiva cambia con base, al menos en parte, en los siguientes factores: i) al menos un flujo magnético, y ii) calentamiento suficiente de al menos una FAP.	<i>La diferencia entre las dos reivindicaciones 1, está en que la que corresponde a la estadounidense, hace mayor énfasis a la permeabilidad magnética de la FAP, como por ejemplo comparándola con la permeabilidad del aire y lo que ello implica. El resto de la materia reclamada es idéntica.</i>
2. El inductor de acuerdo a la reivindicación 1, en donde el calentamiento suficiente se debe una temperatura Curie de al menos una FAP.	2. El inductor de acuerdo a la reivindicación 1, en donde el calentamiento suficiente se debe una temperatura Curie de al menos una FAP.	<i>Iguales</i>
3. El inductor de acuerdo a la reivindicación 2, en donde el inductor adicionalmente una MAP, en donde por lo menos una MAP es una pieza de entrehierro metálica, en donde al menos una MAP se ubica en una proximidad suficiente de al menos una FAP, dando lugar en la presente a suficiente calor de por lo menos una MAP de por lo menos una FAP.	3. El inductor de acuerdo a la reivindicación 2, en donde el inductor además comprende al menos una pieza de entrehierro metálica (MAP), en donde al menos una MAP se ubica: i) dentro del núcleo del inductor de tal manera que al menos un flujo magnético pase a través de al menos una MAP, y ii) en una proximidad suficiente de al menos	<i>La diferencia entre ellas radica únicamente en que la reivindicación 3 colombiana no incluye el numeral (i) de la reivindicación 3 estadounidense.</i>

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	una FAP, en donde al menos una MAP es capaz de ser calentada cuando al menos un flujo magnético pase a través de al menos una MAP; y en donde el al menos una MAP es capaz de causar, cuando esta calentada, el calentamiento suficiente de al menos una FAP.	
4. El inductor de acuerdo con la reivindicación 3, en donde el inductor adicionalmente comprende por lo menos un aislante, en donde por lo menos un aislante se coloca a lo largo de por lo menos una parte de flujo magnético que adicionalmente ajusta en la presente una inductancia del inductor.	4. El inductor de acuerdo con la reivindicación 3, en donde el inductor además comprende al menos un aislante, en donde el aislante es: i) una MAP de baja permeabilidad, ii) está localizado dentro del núcleo del inductor del tal manera que al menos un flujo magnético del núcleo del inductor pase a través del aislante, y iii) es capa de afectar la inductancia del inductor.	La diferencia entre ellas radica únicamente en que la reivindicación 4 colombiana no incluye el numeral (i) de la reivindicación 4 estadounidense.
5. El inductor de acuerdo a la reivindicación 1, en donde al menos una FAP comprende al menos un material de ferrita.	5. El inductor de acuerdo a la reivindicación 1, en donde al menos una FAP comprende al menos un material de ferrita.	Iguales
6. El inductor de acuerdo a la reivindicación 5, en donde al menos un material de ferrita suaves seleccionado del grupo que consiste de material ferrita de níquel-zinc, material ferrita de magnesio-zinc y material ferrita de manganeso-zinc.	6. El inductor de acuerdo a la reivindicación 5, en donde al menos un material de ferrita suaves seleccionado del grupo que consiste de material ferrita de níquel-zinc, material ferrita de magnesio-zinc y material ferrita de manganeso-zinc.	Iguales
7. El inductor de acuerdo a la reivindicación 1, en donde la al menos una FAP comprende al menos un material que presenta una permeabilidad relativa adecuada en un rango entre 14 a 550.	7. El inductor de acuerdo a la reivindicación 1, en donde la al menos una FAP comprende al menos un material que presenta una permeabilidad relativa adecuada en un rango entre 14 a 550.	Iguales
8. El inductor de acuerdo a la reivindicación 1, en donde la al menos una FAP comprende al menos un material de alimentación de múltiples aleaciones	8. El inductor de acuerdo a la reivindicación 1, en donde la al menos una FAP comprende al menos un material de alimentación de múltiples aleaciones	Iguales

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9. El inductor de acuerdo a la reivindicación 8, en donde el material de alimentación de múltiples aleaciones contiene al menos 50% en peso de níquel, al menos 20% en peso de hierro y el balance comprende otro material adecuado	9. El inductor de acuerdo a la reivindicación 8, en donde el material de alimentación de múltiples aleaciones contiene al menos 50% en peso de níquel, al menos 20% en peso de hierro y el balance comprende otro material adecuado	Igual
10. El inductor de acuerdo a la reivindicación 2, en donde la temperatura de Curie está entre 130 y aproximadamente 1200 °C.	10. El inductor de acuerdo a la reivindicación 2, en donde la temperatura de Curie está entre 130 y aproximadamente 1200 °C.	Igual
11. El inductor de acuerdo a la reivindicación 6, en donde la temperatura de Curie es de aproximadamente 200 °C.	11. El inductor de acuerdo a la reivindicación 6, en donde la temperatura de Curie es de aproximadamente 200 °C.	Igual
12. El inductor de acuerdo a la reivindicación 1, en donde al menos una FAP comprende al menos una primera parte de una FAP y al menos una segunda parte de una FAP, en donde al menos una primera parte de una FAP y al menos una segunda parte de una FAP son estructuras separadas.	12. El inductor de acuerdo a la reivindicación 1, en donde al menos una FAP comprende al menos una primera parte de una FAP y al menos una segunda parte de una FAP, en donde al menos una primera parte de una FAP y al menos una segunda parte de una FAP son estructuras separadas.	Igual
13. El inductor de acuerdo a la reivindicación 12, en donde al menos una primera parte de una FAP difiere de al menos una segunda parte de una FAP en al menos una de las siguientes características: composición, tamaño y forma.	13. El inductor de acuerdo a la reivindicación 12, en donde al menos una primera parte de una FAP difiere de al menos una segunda parte de una FAP en al menos una de las siguientes características: composición, tamaño y forma.	Igual
14. El inductor de acuerdo a la reivindicación 13, en donde la al menos primera parte de una FAP tiene una primera forma y al menos una segunda parte de una FAP tiene una segunda forma, y en donde la primera forma es complementaria de la segunda forma de tal manera que al menos una primera parte de una FAP interbloquea con la al menos segunda parte de una FAP para ensamblar la al menos una FAP.	14. El inductor de acuerdo a la reivindicación 13, en donde la al menos primera parte de una FAP tiene una primera forma y al menos una segunda parte de una FAP tiene una segunda forma, y en donde la primera forma es complementaria de la segunda forma de tal manera que al menos una primera parte de una FAP interbloquea con la al menos segunda parte de una FAP para ensamblar la al menos una FAP.	Igual

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