02-06-2004 FORM PTO-1619A U.S. Department of Commerce Patent and Trademark Office Expires 06/30/99 OMB 0651-0027 **PATENT** 102663900 RECORDATION FORM COVER SHEET PATENTS ONLY TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or cop(les). Submission Type Conveyance Type **Assignment** New **Security Agreement** Resubmission (Non-Recordation) License **Change of Name Document ID# Correction of PTO Error** Merger Other Reel# Frame # U.S. Government (For Use ONLY by U.S. Government Agencies) **Corrective Document Departmental File** Secret File Reel# Frame # Conveying Party(ies) Mark if additional names of conveying parties attached **Execution Date** Month Day Year 01222004 Name (line1) HUANG, Jiankang Name (line2) Second Party Execution Date Month Day Year 10767800 01222004 Name (line1)O'HANDLEY, Robert C. Name (line2) **Receiving Party** Mark if additional names of receiving parties attached If document to be recorded Name (line 1) Ferro Solutions, Inc. is an assignment and the receiving party is not domiciled in the United Name (line 2) States, an appointment of a domestic representative is attached. Address (line 1) 563 Poplar Street (Designation must be a separate document from Assignment.) Address (line 2) MA 02131 Address (line 3) Roslindale Stat Enter for the first Receiving Party only. **Domestic Representative Name and Address** Name Address (line 1) Address (line 2) Address (line 3)

FOR OFFICE USE ONLY

Address (line 4)

人名英格兰 化铁铁铁矿 医骨髓体

PATENT

REEL: 014948 FRAME: 0257

FORM PTO-1619C Expires 06/30/99 OMB 0651-0027

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

U.S. Department of Commerce Patent and Trademark Office PATENT

Conveying Party(ie Enter additional Conveying		lark if additional names of conveying p	arties attached Execution Date Month Day Yeas
Name (line1) BONO,	David		01222004
Name (line2)			のの Execution Date Month Day Year
Name (line1)			1748
Name (line2)			Execution Date Month Day Year
Name (line1)			
Name (line2)			
Receiving Party(ies		Mark if additional names	of receiving parties attached
Name (line 1)			If document to be recorded is an assignment and the receiving party is not
Name (line 2)			domiciled in the United States, an appointment of a domestic representative is attached. (Designation
Address (line 1)			must be a separate document from Assignment.)
Address (line 2)			
Address (line 3)	City	State/Country	Zip Code If document to be recorded is
Name (line 1)			an assignment and the receiving party is not domiciled in the United
Name (line 2)			States, an appointment of a domestic representative is attached. (Designation must be a separate document from
Address (line 1)			Assignment.)
Address (line 2)			
Address (line 3)	City	State/Country	Zip Code
	s) or Patent Number(s	Mark if additional nument Number (DO NOT ENTER BOTH num	
	pplication Number(s)		Patent Number(s)

FORM PTO-1619B Expires 06/30/99
OMB 0651-0027

Page 3

U.S. Department of Commerce Patent and Trademark Office PATENT

Correspond	ent Name and Address	Area Code	and Telephone Number	(617) 3	67-4600
Name	Paul E. Kudirka, Es	q.			
Address (line 1)	Kudirka & Jobse, LL	P			
Address (line 2)	One State Street, S	uite 800			
Address (line 3)	Boston, MA 02109				
Address (line 4)					
Pages	Enter the total number of pagincluding any attachments.	ges of the att	ached conveyance docui	ment #	3
• •	Number(s) or Patent Nur he Patent Application Number or the	• •			imbers attached e property).
Pat	ent Application Number(s)		Pate	ent Numbe	er(s)
If this document is signed by the first	s being filed together with a <u>new</u> Pate t named executing inventor.	ent Application, e	enter the date the patent applic	ation was	Month Day Year 01222004
Patent Coop	peration Treaty (PCT)	PCT	PCT		PCT
<u>only</u>	er PCT application number <u>vif</u> a U.S. Application Number not been assigned.	PCT	PCT		РСТ
Number of F	Properties Enter the tot	al number of	properties involved.	# 1	
Fee Amount	ee Amount Fee Amount for Properties Listed (37 CFR 3.41): \$40.00				
Method of Deposit		osed 🔀	Deposit Account		
	payment by deposit account or if add	itional fees can l eposit Accou		# 02-3	038
	Au	uthorization t	o charge additional fees:	Yes 🔀	No 🗌
Statement a	nd Signature				
atta	he best of my knowledge and ched copy is a true copy of th cated herein.				
	E. Kudirka of Person Signing	Vaul	Signature	1/2	Q /o 4 Date
					

PATENT

REEL: 014948 FRAME: 0259

ASSIGNMENT OF PATENT APPLICATION

Docket No. F0017/7001

Whereas we, the undersigned, have made certain inventions or discoveries (or both) set forth in an application for Letters Patent of the United States of America entitled, HIGH EFFICIENCY, VIBRATION ENERGY HARVESTER, identified by Kudirka & Jobse, LLP, Docket No. F0017/7001, which application was executed by us on the date(s) indicated below, and

Whereas Ferro Solutions, Inc., a Delaware corporation having a place of business at 563 Poplar Street, Roslindale, Massachusetts 02131, which, together with its successors and assigns, is hereinafter called "Assignee," is desirous of acquiring the title, rights, benefits and privileges hereinafter recited;

Now, therefore, for valuable consideration furnished by Assignee to us, receipt and sufficiency of which is hereby acknowledged, we do hereby, without reservation:

- 1. Assign, transfer and convey to Assignee the entire right, title and interest in and to said inventions and discoveries, said application for Letters Patent of the United States of America, any and all other applications for Letters Patent on said inventions and discoveries in whatsoever countries, including all divisional, renewal, substitute, continuation, Convention and non-Convention applications based in whole or in part upon said inventions or discoveries, or upon said applications, and any and all Letters Patent, reissues, reexaminations, and extensions of Letters Patent granted for said inventions and discoveries or upon said applications, and every priority right that is or may be predicated upon or arise from said inventions, said discoveries, said applications and said Letters Patent;
- 2. Authorize Assignee to file patent applications in any or all countries on any or all of said inventions and discoveries in our names or in the name of Assignee or otherwise as Assignee may deem advisable, under the International Convention or otherwise:
- 3. Authorize and request the Commissioner of Patents and Trademarks of the United States of America and the empowered officials of all other governments to issue or transfer all said Letters Patent to Assignee, as assignee of the entire right, title and interest therein or otherwise as Assignee may direct;
- Warrant that we have not knowingly conveyed to others any right in said inventions, discoveries, applications or patents or any license to use the same or to make, use or sell anything embodying or utilizing any of said inventions or discoveries; and that we have good right to assign the same to Assignee without encumbrance;
- 5. Bind our heirs, legal representatives and assigns, as well as ourselves, to do, upon Assignee's request and at Assignee's expense, but without additional consideration to us or them, all acts reasonably serving to assure that the said inventions and discoveries, the said patent applications and the said Letters Patent shall be held and enjoyed by Assignee as fully and entirely as the same

Assignment 1 of 3

PATENT REEL: 014948 FRAME: 0260 could have been held and enjoyed by our heirs, legal representatives and assigns if this assignment had not been made; and particularly to execute and deliver to Assignee all lawful application documents including petitions, specifications, and oaths, and all assignments, disclaimers, and lawful affidavits in form and substance as may be requested by Assignee; to communicate to Assignee all facts known to us relating to said inventions and discoveries or the history thereof; and to furnish Assignee with any and all documents, photographs, models, samples and other physical exhibits in our control or in the control of our heirs, legal representatives or assigns which may be useful for establishing the facts of our conceptions, disclosures, and reduction to practice of said inventions and discoveries.

In testimony of which we have executed this Assignment of Patent Application on the date indicated next to our names.

Additional assignor name sheets attached.

冈

Date I signed the declaration: 1/22/04	·
H-2-	Today's Date: <u>//22/o</u> .
Jiankang Huang 563 Poplar Street, Roslindale, MA 02131	,
State of Massachusets ss County of Middle sex	
County of Middle sex	
On this 22 day of 3an., 2004 to me known and known to me to be the person foregoing instrument, and he acknowledged the Notary Public Known to me personally	described in, and who executed the WARD NARD NARD NARD NARD NARD NARD NARD N

Assignment 2 of 3

PATENT REEL: 014948 FRAME: 0261

ASSIGNMENT - SUPPLEMENTAL ASSIGNOR SHEET

Second Assignor Date I Signed the declaration: for 22 2004
Date Signed the declaration: Jon 22 2004 Robert C. O Handley Date: Jon - 22, 2004 Robert C. O'Handley
Robert C. O'Handley 3 Glenn Cove Road, Andover, MA 01810
State of Massachusetts ss County of Middle sex
On this 22 day of Jan, 204, before me appeared Robert C. O'Handley, to me known and known to me to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be the person described in and who executed the foregoing instrument, and he acknowledged the same to be the person described.
Notary Public [seal]
Notary Public 0
☐ Known to me personally ☐ Identification produced: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Third Assignor Date Signed the declaration: 1/22/2004 David Bono Date: Jan 92, 9004
138 Dover Road, Wellesley, MA 0248 07482 DCB
State of <u>MussachuseHs</u> State of <u>MussachuseH</u>
County of Middle sex
On this $\frac{22}{2}$ day of $\frac{\sqrt{3}}{2}$, 20 $\frac{\sqrt{4}}{2}$, before me appeared David Borto, to
me known and known to me to be the person described in, and who executed the foregoing instrument, and he acknowledged the same to be his free act and deed
Notary Public [seal]
Known to me personally Identification produced:

RECORDED: 01/29/2004

Assignment 3 of 3

PATENT REEL: 014948 FRAME: 0262