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PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
The University of Cape Town	01/19/2012

RECEIVING PARTY DATA

Name:	PST Sensors (Proprietary) Limited	
Street Address:	Department of Physics, RW James Building, Rm 513	
Internal Address:	Upper Campus, University of Cape Town	
City:	Cape Town	
State/Country:	SOUTH AFRICA	
Postal Code:	7700	

PROPERTY NUMBERS Total: 3

Property Type	Number
Patent Number:	8026565
Application Number:	12991879
Application Number:	12995916

CORRESPONDENCE DATA

Fax Number: (212)588-0500 212-588-0800 Phone: lyoung@flhlaw.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Frommer Lawrence & Haug LLP

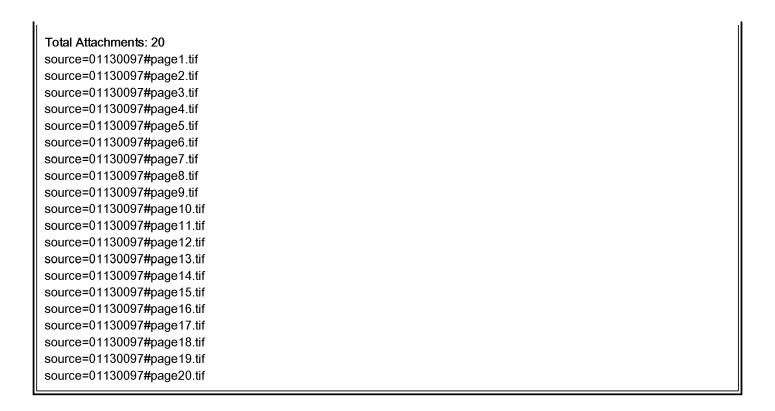
Address Line 1: 745 Fifth Avenue

Address Line 4: New York, NEW YORK 10151

ATTORNEY DOCKET NUMBER:	930092-2014,-2077,-2081
NAME OF SUBMITTER:	Ronald R. Santucci

REEL: 028553 FRAME: 0959

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IP ASSIGNMENT AGREEMENT

between

THE UNIVERSITY OF CAPE TOWN

and

PST SENSORS (PROPRIETARY) LIMITED



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1. **Definitions and Interpretation**

In this Agreement, the following terms and expressions shall, unless 1.1 otherwise stated or where inconsistent with the context in which they appear, bear the following meanings, and cognate terms and expressions shall bear corresponding meanings:

cori	responding meanings:		
1.1.1	"Agreement"	-	this assignment agreement, including all Schedules, as amended from time to time;
1.1.2	"Brîtton"	-	means Professor David Thomas Britton, an adult male individual with his main address located at, 704 De Oude Schuur, 120 Bree Street, Cape Town 8001, South Africa;
1.1.3	"Business"	-	the research, development and commercialization of printed silicon technologies;
1.1.4	"Business Days"	-	any day other than a Saturday or Sunday or public holiday in the Republic of South Africa;
1.1.5	"Confidential Information"	-	all technical, commercial, scientific, marketing or business information, any documentation, marketing strategies, processes, equipment, designs, technical specifications, development plans, concepts and ideas, financial information, customer information or records, business plans, customer and

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vendor lists, products, analyses,

1.1.9

"Patents"



test results, research, descriptions, drawings, computer software, programming, hardware configurations, systems, materials, and/or data and all information of any kind or nature relating to, underlying and/or depicting the Business and/or to the Intellectual Property including trade secrets and confidential know-how, whether in written, oral, magnetic or machine-readable or other format and whether formally designated as confidential or not;

1.1.6	"Effective Date"	 means the date on which the condition precedent is fulfilled or waived in accordance with clause 3;
1.1.7	"Härting"	 means Professor Margit Härting, an adult female individual with her main address located at 8 Twickenham Road, Mowbray 770, South Africa.
1.1.8	"Intellectual Property"	- means all intellectual property

rights relating to the Business including, but not limited to, the Patents, all priority and other rights association with the Patents, invention rights,;

all patent applications and registrations filed by or on behalf of UCT anywhere in the world relating

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		to the Business, including, without
		limitation, the registered patents
		and the patent applications listed in
		Annexure "A" hereto,
1.1.10	"Parties" -	the parties to this Agreement,
		being UCT and PST;
1.1.11	"Person" -	a natural person, company, close
		corporation or other juristic person
		or corporate entity, charity,
		partnership, trust, joint venture,
		syndicate or other association of
		persons or entities;
1.1.12	"Price" -	has the meaning given to such
		term in clause 6.1;
1.1.13	"PST"	BOT O
1.1.10	131	means PST Sensors (Pty) Limited,
		registration number 2010/01666/0,
		a private company incorporated the under the laws of the Republic of
		South Africa;
		554.77.11164,
1.1.14	"Shareholders Agreement"-	means the subscription and
		shareholders agreement concluded
		on or about the date hereof,
		between UCT, Britton and Härting
		which regulates the rights and
		obligations between Britton,
		Härting and UCT as shareholders
		in PST;
1.1.15	"Signature Date" -	the date on which this Agreement
		is signed by the last Party;

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1.1.16 **"UCT**"

means the University of Cape Town, a university incorporated in terms of the Higher Education Act, 1997 and the statute of the University of Cape Town, promulgated under Government Notice No. 1199 of 20 September 2002.

1.2 In this Agreement:

- 1.2.1 references to a statutory provision include any subordinate legislation made from time to time under that provision and include that provision as modified or re-enacted from time to time;
- 1.2.2 words importing the masculine gender include the feminine and neuter genders and *vice versa* in relation to each such word; the singular includes the plural and *vice versa*; and natural persons include artificial persons and *vice versa*;
- 1.2.3 if a definition imposes substantive rights and obligations on a Party, such rights and obligations shall be given effect to and shall be enforceable, notwithstanding that they are contained in a definition;
- any definition, wherever it appears in this Agreement, shall bear the same meaning and apply throughout this Agreement unless otherwise stated or inconsistent with the context in which it appears;
- if there is any conflict between any definitions in this Agreement then, for purposes of interpreting any clause of the Agreement or paragraph of any Annexure, the definition appearing in that clause or paragraph shall prevail over any other definition contained elsewhere in this Agreement;
- 1.2.6 where any number of days is prescribed, those days shall be reckoned exclusively of the first and inclusively of the last day unless the last day

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falls on a day which is not a Business Day, in which event the last day shall be the next succeeding Business Day;

- if any of the provisions of this Agreement are or may become illegal, invalid or unenforceable in any jurisdiction affected by this Agreement, the Parties shall meet to discuss and agree in good faith alternative provision(s) to replace the relevant provision(s). If the Parties are unable to reach agreement in this regard, the relevant provision(s) shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability and shall be treated as having not been written (ie pro non scripto) and severed from the balance of this Agreement, without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction provided that the relevant provision(s) shall be severed from the balance of this Agreement in such a way to ensure such severance results in the least adverse effect possible on both Parties:
- any reference to "law" means law, legislation, statutes, regulations, directives, orders, notices, promulgations and other decrees of any governmental authority, which have force of law or which it would be an offence not to obey, and the common law, as amended, replaced, renacted, restated or re-interpreted from time to time;
- the rule of construction that if general words or terms are used in association with specific words or terms which are a species of a particular genus or class, the meaning of the general words or terms shall be restricted to that same class (ie the eiusdem generis rule) shall not apply, and whenever the word "including" is used followed by specific examples, such examples shall not be interpreted so as to limit the meaning of any word or term to the same genus or class as the examples given.
- 1.3 The expiration or termination of this Agreement shall not affect such of the provisions of this Agreement which are expressly provided to operate after any such expiration or termination, or which of necessity must continue to

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have effect after such expiration or termination, notwithstanding that the relevant provisions themselves do not provide for this.

1.4 Each of the provisions of this Agreement has been negotiated by the Parties and drafted for the benefit of the Parties, and accordingly the rule of construction that the contract shall be interpreted against or to the disadvantage of the Party responsible for the drafting or preparation of the Agreement (i.e. the *contra proferentem* rule), shall not apply.

2. Introduction

- 2.1 UCT is the proprietor of the Intellectual Property.
- UCT has agreed to assign to PST all right, title, and interest in and to the Intellectual Property in consideration for which PST has agreed to pay UCT the Price.
- 2.3 The Agreement sets out the terms of the agreement between the Parties relating to the Intellectual Property.
- 2.4 Some of the Intellectual Property in Annexure "A" and in particular that identified in Annexure "A" as numbers 9 to 13 under this transaction was created with the support from the South African Government (under contract number DST/CON 0112/2011) awarded by the South Africa Department of Science and Technology and is subject to the requirements of the South African Intellectual Property Rights from Publicly Financed Research and Development Act, 2008 and its regulations (Act 51 of 2008) and the South African Government has certain rights to the Intellectual Property in terms of sections 11(1)(e), 11(2) and 14 of Act 51 of 2008.
- 2.5 PST has developed a business plan and has agreed to use its best endeavours to commercialise the Intellectual Property.

3. Condition Precedent

3.1 The rights and obligations of the Parties in terms of this Agreement (other than those set out in clause 1, this clause 3.1 and in clauses 9.1 to 11, which shall be of full force and effect from the Signature Date) are subject to:



- 3.1.1 the Shareholders Agreement being executed by the parties thereto and becoming unconditional in accordance with its terms (save for any suspensive condition requiring this Agreement to become unconditional); and
- accordance with the Shareholders Agreement.
- 3.1.3 the approval of the National Intellectual Property Management Office ("NIPMO") being obtained where necessary for the assignment of any Intellectual Property listed in Annexure "A".
- 3.2 The Parties shall, where it is in their respective power and control to do so, use their reasonable commercial endeavours to procure the fulfilment of the condition precedent as soon as possible.
- The condition precedent contained in clause 3.1 is for the benefit of the Parties who may by mutual written agreement reached before the date referred to in clause 3.1 above, waive or extend the period for fulfilment of such condition precedent.
- 3.4 If the condition precedent has not been fulfilled or waived by 31 March 2012 or the period for fulfilment thereof has not been extended in accordance with clause 3.3 then, the rights and obligations of the Parties as set out in this Agreement (save for those set out in clause 1, this clause 2.1 and in clauses 9.1 to 11, which rights and obligations shall continue to be of force and effect) will fall away and cease to be of any further force or effect. No Party will have any liability to or claim against the other Party arising out of the failure of the condition precedent set out in clause 3.1, except for a failure by a Party to comply with its obligations pursuant to clause 3.2 and to the extent that this Agreement may have been partially implemented, the Parties shall be restored as nearly as may be possible to their status quo ante.



4. Assignment of Intellectual Property

- 4.1 UCT hereby assigns to PST, with effect from the Effective Date:
- 4.1.1 the Intellectual Property:
- 4.1.2 all rights to priority flowing from the applications in respect of the Patents; and
- 4.1.3 all accrued rights to claim relief from third parties in respect of infringement or unlawful use of the Intellectual Property which may have occurred prior to the Effective Date.
- 4.2 UCT hereby waives all related moral and/ or personal rights that the UCT may have in the Intellectual Property, but Britton, Härting and UCT shall retain a non-transferable right on a royalty-free basis to continue to use the Intellectual Property for the purposes of research, training and teaching.

5. Risk and benefit of the Intellectual Property

Notwithstanding the Signature Date, the risk in and benefits attaching to the Intellectual Property shall pass to PST with effect from the Effective Date.

6. The Price

- The price to be paid by PST to UCT in relation to the assignment by UCT to PST of the Intellectual Property as referred to in this Agreement, is an amount of R1,101,108 ("Price").
- From the Effective Date, the Price shall remain an outstanding debt owed by PST to UCT, which debt shall bear interest and shall be payable by PST on having sufficient funds available therefore in accordance with the Shareholders Agreement, which amount shall be reflected in the Parties' respective books as follows:
- 6.2.1 by debiting a loan account of UCT (as creditor) against PST (as debtor) in the books of the Purchaser to the value of the aforesaid amount;

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6.2.2 by crediting a loan account of UCT (as creditor) against PST (as debtor) in the books of the Purchaser to the value of the aforesaid amount.

7. Delivery

On receipt of a written request from PST and as soon as practically possible thereafter:

- 7.1 UCT shall deliver to PST all certificates evidencing registration of the Intellectual Property as well as all original filing receipts issued in respect of any applications for registration of the Intellectual Property;
- 7.2 UCT shall, where possible, deliver to PST all documentation in its possession evidencing its ownership of any works entitled to protection as patented works including, where applicable, all published patents and patent applications from the author and/or previous owner of the patent in such works where UCT was not the author or first owner;
- 7.3 UCT shall deliver to PST all documentation in its possession (in all forms including all electronic copies) and software relating to the Confidential Information,; and
- On the Effective Date UCT shall co-operate with PST as far as reasonably necessary to record the assignment of the Intellectual Property in favour of PST in the relevant statutory registers and sign any documentation reasonably required in this regard and the cost of registration of the assignment of the Intellectual Property shall be borne by PST.

8. Warranties and representations given by UCT

UCT warrants that:

- 8.1 it is the proprietor of the Intellectual Property;
- 8.2 none of the Intellectual Property is encumbered in any way and no third party holds any rights of any nature whatsoever in and to the Intellectual

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Property, save for the approval required from NIPMO where applicable, as described in clause 3.1.3;

- 8.3 none of the Intellectual Property is the subject of any form of licence or preemptive agreement;
- no steps have been taken by any Person to challenge the registrations of the Intellectual Property or limit their scope in any way and UCT is not aware of any circumstances which would give rise to an application to challenge the registrations of the Intellectual Property or to limit the scope of any registration; and
- 8.5 the Intellectual Property is not the subject of any existing litigation and UCT is not aware of any facts or circumstances which would give rise to litigation relating to the Intellectual Property.

9. Breach

- In the event that either Party should breach, or otherwise be in default of any of its obligations under or in terms of this Agreement, and remain in default, or fail to remedy such breach within 10 Business Days after receipt of written notice from the other Party calling upon it to do so, the non-defaulting Party will be entitled, but not obliged, in addition to any other rights which it may have, or remedies which may be available to it, to:
- 9.1.1 cancel the Agreement forthwith, with or without claiming damages;
- 9.1.2 obtain an order against such defaulting party for specific performance, with or without claiming damages; or
- 9.1.3 claim such damages as it may have suffered in lieu of specific performance, together with all amounts owing under, or in terms of this Agreement, whether or not such amounts have become due for payment.

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10. Confidentiality

Each of the Parties shall at all times keep the existence and contents of this Agreement confidential and any information of or relating to either Party or their operations or affairs which it has acquired or may acquire in relation to a Party or their operations or affairs prior to or pursuant to this Agreement, save for any information:

- 10.1 which is publicly available or becomes publicly available through no act or default of any Party; or
- 10.2 which was in the possession of a Party prior to its disclosure otherwise than as a result of any breach by that Party of any obligation of confidentiality owed to any other person whether pursuant to this Agreement or otherwise; or
- 10.3 which is disclosed to a Party by a person which person did not acquire the information under an obligation of confidentiality; or
- 10.4 which is independently acquired by a Party as a result of work carried out by a person to whom no disclosure of such information has been made;

and each Party shall not use or disclose such information except with the prior written consent of the other Party or in accordance with an order of a court of competent jurisdiction or in order to comply with any law or governmental regulations by which any Party concerned is bound or as may be lawfully requested in writing by any governmental authority, or in the case of information relating to the Company for the advancement of the Company.

11. Miscellaneous matters

11.1 addresses and notices

11.1.1 For the purposes of this Agreement, including the giving of notices and the serving of legal process (as applicable), the Parties choose domicilium citandi et executandi ("domicilium") at:

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11.1.1.1 University of Cape Town:

Physical Address

Bremmer Building

Lower Campus Lover's Walk Rondebosch

7700

Fax number

021 650 5778

marked for the attention of The Director: RCIPS; and

11.1.1.2 PST Sensors:

Physical Address

Department of Physics

RW James Building

Room 513 Upper Campus

University of Cape Town

7700

Fax number

021 650 3342

marked for the attention of Prof DT Britton;

Any Party may at any time change that Party's *domicilium* by notice in writing to another address in South Africa, provided that the new *domicilium* consists of, or includes, a physical address at which process can be served.

- 11.1.2 Any notice given in connection with this Agreement shall:
- 11.1.2.1 be delivered by hand; or
- be sent by fax (if the *domicilium* includes a fax number) to the domicilium chosen by the Party concerned.
- 11.1.3 A notice given as set out above which:
- is delivered by hand during the normal business hours of the addressee at the addressee's *domicilium* for the time being shall be presumed, unless the contrary is proved by the addressee, to have been received by the addressee at the time of delivery; or



11.1.3.2

is transmitted during normal business hours by fax to the fax number forming an element of the addressee's domicilium in terms of clause 11.1, shall, unless the contrary is proved by the addressee, be deemed to have been received by the addressee on the date of transmission, and if transmission after normal business hours shall be deemed to have been received by the addressee on the first Business Day succeeding the date of transmission.

11.2 entire contract

This Agreement contains all the express provisions agreed to between the Parties with regard to the subject matter of the Agreement, and supersedes and novates in its entirety any previous understandings or agreements among the Parties in respect thereof.

11.3 no stipulation for the benefit of a third person

Save as is expressly provided for in this Agreement, no provision of this Agreement constitutes a stipulation for the benefit of a third person (ie a *stipulatio alteri*) which, if accepted by the person, would bind any Party in favour of that person.

11.4 no representations

A Party may not rely on any representation (whether or not made innocently, negligently or deliberately) which allegedly induced that Party to enter into this Agreement, unless the representation is recorded in this Agreement.

11.5 variation, cancellation and waiver

No contract varying, adding to, deleting from or cancelling this Agreement, and no waiver of any right under this Agreement, shall be effective unless reduced to writing and signed by or on behalf of the Parties.

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11.6 indulgences

The grant of any indulgence, extension of any time or relaxation of any provision by a Party under this Agreement (or under any other agreement or document issued or executed pursuant to this Agreement) shall not constitute a waiver of any right by the grantor or prevent or adversely affect the exercise by the grantor of any existing or future right of the grantor. Accordingly, if a Party at any time breaches any of that Party's obligations under this Agreement, the aggrieved Party:

- may at any time exercise any right that became exercisable directly or indirectly as a result of the breach unless the aggrieved Party expressly elects in writing not to exercise that right or to relinquish that right, or the aggrieved Party by its clear and unambiguous conduct (amounting to more than mere delay) elects not to exercise that right;
- may accept the late performance of the Party in breach, which acceptance shall be provisional only and shall not prevent the aggrieved Party from exercising at any time the aggrieved Party's rights arising out of that breach; and
- shall not be prevented (estopped) from exercising the aggrieved Party's rights arising out of that breach, despite the fact that the aggrieved Party may have elected or agreed on one or more previous occasions not to exercise the aggrieved Party's rights arising out of any similar breach or breaches.

11.7 cession and delegation

A Party may not cede any or all of that Party's rights or delegate any or all of that Party's obligations under this Agreement without the prior written consent of the other Parties.

11.8 applicable law

This Agreement is to be governed, interpreted and implemented in accordance with the laws of South Africa.





11.9 jurisdiction of South African courts

The Parties consent to the non-exclusive jurisdiction of the Western Cape High Court, Cape Town for any proceedings arising out of or in connection with this agreement.

11.10 **costs**

- 11.10.1 PST shall bear the legal costs and disbursements of and incidental to the negotiation, preparation, settling, signing and implementation of this Agreement.
- Any costs, including all legal costs on an attorney and own client basis and any value added tax, incurred by a Party arising out of or in connection with a breach by the other Parties shall be borne by the Party in breach.

11.11 signature in counterparts

This Agreement may be executed in counterparts, each of which shall be deemed to be an original and which together shall constitute one and the same agreement.

11.12 independent advice

Each of the Parties hereby respectively agrees and acknowledges that:

- it has been free to secure independent legal, tax and accounting advice as to the nature and effect of each provision of this Agreement and that it has either taken such independent legal, tax and accounting advice or has dispensed with the necessity of doing so; and
- each provision of this Agreement (and each provision of the annexes hereto) is fair and reasonable in all the circumstances and is part of the overall intention of the Parties in connection with this Agreement.





11.13 co-operation

Each of the Parties undertakes at all times to do all such things, perform all such acts and take all such steps, and to procure the doing of all such things, within its power and control, as may be open to it and necessary for and incidental to the putting into effect or maintenance of the terms and conditions of this Agreement.

Signed at Rond Chosch

on

19 January

2014-2012

Witness

for: University of Cape Town

duly authorised

Signed at CAPE TOWN

on

30th JANUARY 2014 2012

Witness

for: PST Sensors

J. Brother

duly adilionsed

Published Patents and Applications

1. A Thin Film Semiconductor Device and Method of Manufacturing a Thin Film Semiconductor Device. M. Härting and D.T. Britton

ZA 2003/0849 Provisional PCT/IB2004/221 PCT ZA 2005/06095

South African EP 04706753.3 European JP 2006-502374 Japanese

JP DIV 2012-015646 Japanese Divisional US 10/543,475 **United States**

2. Semiconducting Nanoparticles with Surface Modification

D.T. Britton and M. Härting

ZA 2005/05300 Provisional PCT/IB2006/001788 PCT

ZA 2008/00436 South African CN 200680023528.4 Chinese EP 06765606.6 European IN 334/DELNP/2008 Indian JP 2008/519005 Japanese KR 10-2008-7000378 Korean US 11/922,790 USA

3. Doping of Particulate Semiconductor Materials

D.T. Britton and M. Härting

ZA 2005/06752 Provisional PCT/IB2006/002290 **PCT**

US 11/990,816 USA

South African ZA 2008/01815 CN 200680031074.5 Chinese ËΡ 06779969.2 European IN 1261/DELNP/2008 Indian JP 2008-527528 Japanese KR 10-2008-7006781 Korean

European Validations

Austria, Belgium, Switzerland, Czech Republic, Germany Finland, France, Britain, Ireland, Italy, The Netherlands, Portugal, Spain, Sweden, Turkey

4. Thick Film Semiconducting Inks M. Härting, D.T. Britton, and E.A. Odo

> ZA 2005/10436 Provisional PCT/IB06/003666 PCT CN 200680049004.2 Chinese EP 06842244.3 European

JP 2008-546671 Japanese IN 5344/DELNP/2008 Indian

KR 10-2008-7018039 Korean US 12/158.837 USA

ZA 2008/04813 South African

Method of Producing Stable Oxygen Terminated Semiconducting Nanoparticles D.T. Britton and M. Härting

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ZA 2008/02727 Provisional PCT/IB2009/051507 **PCT** EP 09731057.7 European ZA 2010/08013 South African US 12/991,879 **United States** IN 7891/DELNP/2010 Indian CN 200980118525.2 Chinese JΡ 2011-508013 Japanese KR 10-2010- 7025181 Korean RU 2011 137638 Russia

 Inkjet Printing of Nanoparticulate Functional Inks M. Härting, D.T. Britton and E.A. Odo

> ZA 2008/04765 Provisional PCT/IB2009/052317 PCT EP 09757969.2 European JΡ 2011-512259 Japanese IN 8580-DELNP-2010 Indian US 12/995,916 **United States** ZΑ 2010/08644 South Africa CN 200980125104.2 Chinese KR 10-2010-7029647 Korean RU 2011 137639 Russia

7. Assembling and Packaging a Discrete Electronic Component D.T. Britton and M Härting

ZA 2010/06533 provisional PCT/IB2011/053999 PCT

Printed Temperature Sensor
 D.T. Britton and M Härting

ZA 2010/06532 provisional PCT/IB2011/054001 PCT

 A Method of Producing Nanoparticles M.R. Scriba and D.T. Britton

ZA 2011/05035 Provisional

Flexible temperature and strain sensor
 D.T. Britton and M. Härting

2012/00709 Provisional

Large area temperature sensors
 D.T. Britton and M. Härting

2012/00771 Provisional

12. Thermal Imaging Sensors D.T. Britton and M. Härting

2012/00708 Provisional

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