PATENT ASSIGNMENT COVER SHEET

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

CONVEYING PARTY DATA

| Name | Execution Date |
|------------------------|----------------|
| JONATHAN C.F. MATTHEWS | 07/30/2015 |
| DAMIEN BONNEAU | 07/30/2015 |
| MARK GERARD THOMPSON | 07/30/2015 |

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PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14789162 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | 096655-0949411 |
|-------------------------|----------------|
| NAME OF SUBMITTER: | ANGIE DAVIS |
| SIGNATURE: | /Angie Davis/ |
| DATE SIGNED: | 01/20/2016 |

Total Attachments: 5

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> **PATENT REEL: 037535 FRAME: 0354** 503656789

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PATENT REEL: 037535 FRAME: 0355

Attorney Docket No. 96655-949411 Client Ref. AF/VW/P18685US

ASSIGNMENT

We, the undersigned, have invented certain inventions and improvements disclosed in non-provisional patent application entitled:

SPECTROSCOPY APPARATUS AND METHOD

filed with the United States Patent and Trademark Office on July 1, 2015, and assigned serial no. 14/789,162.

For one dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which we acknowledge, we:

- Agree to assign, transfer, convey, and sell, hereby assign, transfer, convey, and sell and have assigned, transferred, conveyed, and sold to THE UNIVERSITY OF BRISTOL, having a principal place of business at Senate House, Tyndall Avenue, Bristol, BS8 1TH, United Kingdom ("Assignee"), the entire right, title, and interest in and to:
 - (a) all intellectual property (including, without limitation, any innovation, information, invention, discovery, product, process, work or design) disclosed, embodied, shown, or claimed in the above-referenced patent application, implicitly or explicitly;
 - (b) the above-referenced patent application, the right to claim priority to the above-referenced patent application, all applications based in whole or in part upon the above-referenced patent application, including, without limitation, all applications that are a provisional, nonprovisional, design, divisional, continuation, continuation-in-part, registration, utility model, industrial design, reissue, renewal, substitute, extension, reexamination, post-grant review, inter partes review, supplemental examination or non-U.S. patent application or application for other rights based in whole or in part on the abovereferenced patent application;
 - (c) all patents (including, without limitation, all U.S. and non-U.S. patents, registrations, utility models, industrial designs, design patents, counterparts, continuations, continuations-in-part, divisionals, reissues, renewals, substitutes, extensions, reexaminations, post-grant reviews, inter partes reviews and supplemental examinations) that are granted or

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PATENT REEL: 037535 FRAME: 0356

Entitled: Spectroscopy Apparatus and Method

Attorney Docket No.: 96655-949411

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issued upon, or that claim priority to, any and all applications described in (b) of this paragraph or that disclose or claim intellectual property described in (a) of this paragraph, in whole or in part; and

- (d) all claims for damages by reason of past infringement of any rights under the applications or patents described in (a), (b) or (c) of this paragraph (including provisional rights to reasonable royalties pursuant to 35 U.S.C. §154(d)) and the right to sue for and collect such damages and royalties for Assignee's own use.
- 2. Authorize and request the United States Patent and Trademark Office or any other U.S. or non-U.S. agency to issue to the Assignee any and all patent(s), or other rights or documents, resulting from the intellectual property, patent application(s) and patents described in paragraph 1 of this Assignment.
- 3. Agree to sign all papers and documents, including without limitation, applications, declarations, oaths and petitions, and, at the Assignee's expense, perform any other acts that are necessary in connection with prosecution of patent application(s) or intellectual property described in paragraph 1 of this Assignment and the enforcement of patent(s) or other rights resulting from such patent application(s) or intellectual property.
- 4. Agree that the terms, covenants, and conditions of this Assignment shall inure to the benefit of the Assignee, its successors, assigns and other legal representative, and shall be binding upon us, as well as our heirs, legal representatives, and assigns.
- 5. Promise and affirm that we have not entered, and will not enter, into any assignment, contract, or understanding that conflicts with this Assignment.

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Entitled: Spectroscopy Apparatus and Method

Attorney Docket No.: 96655-949411

Page 3 of 5

Signed on the date indicated beside my signature.

Dated: 30th Jy 2015

Jonathan C. F. Matthews

Witness Signature: Awares

Witness Printed Name: Ange Markins

Address: NSS

university of Basia

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Witness Signature: _______

Witness Printed Name: LINDA らしらい

Address: NSQ(

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Entitled: Spectroscopy Apparatus and Method

Attorney Docket No.: 96655-949411

Page 4 of 5

Signed on the date indicated beside my signature.

Dated: 30/07/2015

Damien Bonneau

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Address:

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MVERSITY OF AKISTOL

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Entitled: Spectroscopy Apparatus and Method Attorney Docket No.: 96655-949411

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Signed on the date indicated beside my signature.

| Dated: | 3052/ 2015 | 1. ty | |
|--------|------------|----------------------|--|
| | 9 | Mark Gerard Thompson | |
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| | a | i | |
| | A 1 C / | | |

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RECORDED: 01/20/2016