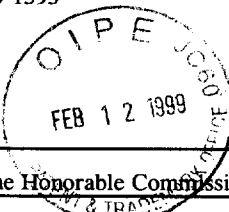

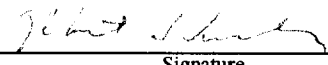
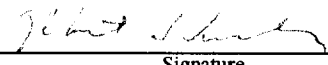
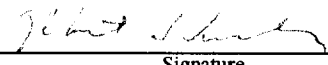


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| FORM PTO-1595 (Rev. 6/93) | <div style="font-size: 1.5em; font-weight: bold;">MRD</div> <div style="font-size: 1.2em; font-weight: bold;">2.12.99</div> <div style="font-size: 1.5em; font-weight: bold;">02-22-1999</div> | U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office | | | |
|  |  <div style="font-size: 1.2em; font-weight: bold;">100969967</div> | IEET Attorney's Docket No. <u>004500-924</u> | | | |
| To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof. | | | | | |
| 1. Name of conveying party(ies): Bruce JOHNSON, Vishal MALLICK, Francois MEYNARD Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 3. Nature of conveyance: <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name Other: _____ Execution Date: <u>6/10/97</u> | 2. Name and address of receiving party(ies): Name: <u>ABB Research Ltd.</u> Address: <u>CH-8050 Zurich</u> <u>Switzerland</u> Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | |
| 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: _____ <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> A. Patent Application No.(s) 08/880,647 </td> <td style="width: 50%; vertical-align: top;"> B. Patent No.(s) </td> </tr> </table> Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | A. Patent Application No.(s) 08/880,647 | B. Patent No.(s) | |
| A. Patent Application No.(s) 08/880,647 | B. Patent No.(s) | | | | |
| 5. Name and address of party to whom correspondence concerning document should be mailed: Name: <u>Robert S. Swecker</u> Address: <u>BURNS, DOANE, SWECKER & MATHIS, L.L.P.</u> <u>P.O. Box 1404</u> <u>Alexandria, Virginia 22313-1404</u> | 6. Total number of applications and patents involved: <u>1</u> 7. Total fee (37 CFR 3.41): <u>\$ 40.00</u> <input checked="" type="checkbox"/> Enclosed <input checked="" type="checkbox"/> Authorized to be charged to deposit account, if necessary 8. Deposit account number: <u>02-4800</u> | | | | |
| DO NOT USE THIS SPACE | | | | | |
| 9. Statement and signature. <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> <table style="width: 100%;"> <tr> <td style="width: 30%; vertical-align: bottom;"> <u>Robert S. Swecker, #19,885</u> Name of Person Signing </td> <td style="width: 40%; text-align: center; vertical-align: bottom;">  Signature </td> <td style="width: 30%; text-align: right; vertical-align: bottom;"> <u>February 12, 1999</u> Date </td> </tr> </table> Total number of pages including cover sheet, attachments, and document: <u>3</u> | | | <u>Robert S. Swecker, #19,885</u> Name of Person Signing |  Signature | <u>February 12, 1999</u> Date |
| <u>Robert S. Swecker, #19,885</u> Name of Person Signing |  Signature | <u>February 12, 1999</u> Date | | | |

Mail documents to be recorded with required cover sheet information to:

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Commissioner of Patents and Trademarks
 Box Assignments
 Washington, D.C. 20231

Attorney's Docket No.

ASSIGNMENT

(JOINT)

THIS ASSIGNMENT, by Bruce Johnson, Vishal Mallick

and
François Meynard, residing at CH-5417 Untersiggenthal, Switzerland,
CH-5413 Birmenstorf, Switzerland and CH-1256 Toine, Switzerland

_____ and
 _____ (hereinafter
 referred to as "the Assignors"), respectively, witnesseth:

WHEREAS, the Assignors have invented certain new and useful improvements in Welding device having a heating device for heating thermoplastic fiber...
☐ which is a provisional application to be filed herewith; ☒ which is a non-provisional application having an oath or declaration executed on even date herewith prior to filing of application; ☐ bearing Application No. _____, and filed on _____; and

WHEREAS, ABB Research Ltd, a corporation duly organized under and pursuant to the laws of Switzerland and having its principal place of business at CH-8050 Zürich, Switzerland (hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said application, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisions applications, above-mentioned, and that the same are unencumbered, and that the

Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby request the Commissioner of Patents to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date 97-06-10 Name of Assignor Bruce V Johnson

Date 97-06-10 Name of Assignor X Vishal Mallik

Date 97-06-10 Name of Assignor X Francis Meynard

Date _____ Name of Assignor _____

Date _____ Name of Assignor _____

Date _____ Name of Assignor _____

Date _____ Name of Assignor _____

Date _____ Name of Assignor _____