PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

CONVEYING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>Execution Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiroshi Doi</td>
<td>01/07/2011</td>
</tr>
<tr>
<td>Masami Shibagaki</td>
<td>01/08/2011</td>
</tr>
<tr>
<td>Yuichi Sasuga</td>
<td>01/11/2011</td>
</tr>
</tbody>
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RECEIVING PARTY DATA

<table>
<thead>
<tr>
<th>Name</th>
<th>CANON ANELVA CORPORATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address</td>
<td>2-5-1, Kurigi, Asao-ku</td>
</tr>
<tr>
<td>City</td>
<td>Kawasaki-shi</td>
</tr>
<tr>
<td>State/Country</td>
<td>JAPAN</td>
</tr>
<tr>
<td>Postal Code</td>
<td>215-8550</td>
</tr>
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PROPERTY NUMBERS Total: 1

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<th>Number</th>
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<tr>
<td>Application Number</td>
<td>13011565</td>
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CORRESPONDENCE DATA

Fax Number: (212)218-2100

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 212-218-2100

Email: kduncan@fchs.com

Correspondent Name: Fitzpatrick, Cella, Harper & Scinto

Address Line 1: 1290 Avenue of the Americas

Address Line 2: 17th Floor

Address Line 4: New York, NEW YORK 10104

ATTORNEY DOCKET NUMBER: 03595.005600.

NAME OF SUBMITTER: Jason M. Okun

Total Attachments: 2

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ASSIGNMENT

FOR VALUE RECEIVED, WE Hiroshi Doi, Masami Shibagaki and Yuichi Sasuga citizens of Japan respectively hereby sell, assign, transfer and convey unto CANON ANELVA CORPORATION a corporation of Japan having a place of business at 2-5-1, Kurigi, Asao-ku, Kawasaki-shi, Kanagawa-ken, Japan its successors, assigns and legal representatives (hereinafter called the “Assignee”), the entire right, title, and interest, for all countries, in and to certain inventions relating to

HEAT TREATMENT APPARATUS AND SEMICONDUCTOR DEVICE MANUFACTURING METHOD

and described in an application for Letters Patent of the United States which is filed concurrently herewith and was executed by us, respectively, in and to said application, and all divisions, renewals and continuations thereof, and all Letters Patent of the United States which may be granted thereon, and all reissues and extensions thereof, and all applications for Letters Patent or other grants of protection of proprietary rights including, but not limited to, inventor's certificate, utility model, utility certificate, patent of importation, registration of patent and industrial design registration which may be filed, and which may be granted, upon said inventions in any countries or regions foreign to the United States, and all reissues, renewals and extensions thereof; and we hereby authorize and request the Commissioner for Patents and Trademarks of the United States, and all officials of countries or regions foreign to the United States having authority to do so, to issue all such Letters Patent or other grants of protection upon said inventions to the Assignee or to such nominees as it may designate.

AND we authorize and empower the said Assignee or nominees to invoke and claim for any application for such Letters Patent or other grants of protection for said inventions filed by it or them, the benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by a convention which may henceforth be substituted for it, and to invoke and claim such right of priority without further written or oral authorization from us.

AND we hereby consent that a copy of this assignment shall be deemed a full and formal equivalent of any assignment, consent to file or like document which may be required in any country or region for any purpose and more particularly in proof of the right of the said Assignee or nominees to claim the aforesaid benefit of the right of priority provided by the International Convention for the Protection of Industrial Property, as amended, or by any convention which may henceforth be substituted for it.
AND we hereby covenant that we have the full right to convey the entire right, title and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

AND we hereby covenant and agree that we will communicate to said Assignee or nominees all facts known to us pertaining to said inventions, and testify in all legal proceedings, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths and declarations and in general perform all lawful acts necessary or proper to aid said Assignee or nominees in obtaining, maintaining, and enforcing all lawful patent or other grants of protection of said inventions in any and all countries and regions.

By: Hiroshi Doi
   Date: January 7, 2011

By: Masami Shibagaki
   Date: January 8, 2011

By: Yuichi Sasuga
   Date: January 11, 2011