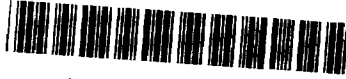


07-31-2000



P/1071-1045

PATENT 101418164

SHEET

To the Assistant Commissioner of Patents and Trademarks: Please record the attached original document or copy thereof.

<p>1. Name of conveying party(ies): Takuya SAWADA Masahiko KIMURA Akira ANDO Koichi HAYASHI</p> <p>Type of Entity: Individuals</p> <p>Additional names(s) of conveying party(ies) attached? No</p>	<p>2. Name and Address of receiving party(ies): Murata Manufacturing Co., Ltd. 26-10, Tenjin 2-chome Nagaokakyo-shi, Kyoto-fu 617-8555 Japan</p> <p>Type of Entity: Corporation-Japan</p> <p>Additional name(s) & address(es) attached? No</p>
<p>3. Nature of Conveyance: Assignment</p> <p>Execution Date: June 22, 2000</p>	
<p>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:</p>	
<p>A. Application No.(s) 09/577,087</p>	<p>B. Patent No.(s)</p>
<p>Additional numbers attached? No</p>	
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p>	<p>6. Total number of documents involved: 1</p>
<p>OSTROLENK, FABER, GERB & SOFFEN, LLP 1180 Avenue of the Americas New York, New York 10036-8403</p>	<p>7. Total fee (37 CFR 3.41): \$ 40.00</p> <p>Enclosed as part of Check No. 095720</p> <p><small>In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee due is not paid, the Patent and Trademark Office is authorized to charge the underpayment to Deposit Account No. 15-0700.</small></p>
<p style="text-align: center;">DO NOT USE THIS SPACE</p>	
<p>8. 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.</p> <p>Edward A. Meilman <i>Edward A. Meilman</i> July 19, 2000 Name of Person Signing Signature Date</p> <p>Total number of pages including cover sheet, attachments, and document: 2</p>	

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PATENT APPLICATION ASSIGNMENT -
SOLE OR JOINT INVENTORS
EXECUTED OUTSIDE U.S.A.



OFGS FILE NO. P/1071-1045

WHEREAS, We, Takuya SAWADA, Masahiko KIMURA, Akira ANDO and Koichi HAYASHI, as assignors, have invented certain improvements in PIEZOELECTRIC CERAMIC COMPOSITION AND PIEZOELECTRIC CERAMIC ELEMENT USING THE SAME for which an application for United States Letters Patent has been executed by us of even date herewith; and

WHEREAS, Murata Manufacturing Co., Ltd., 26-10, Tenjin 2-chome, Nagaokakyo-shi, Kyoto-fu 617-8555, Japan, as assignee, is desirous of acquiring all right, title and interest in and to said invention and any Patent that may be granted therefor.

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, We, as assignors, hereby sell, assign and set over to said assignee the entire right, title and interest for the United States and all other countries in and to said invention and the aforesaid application for Patent, all original, divisional, continuation, substitute or reissue applications and patents applied for or granted therefor in the United States and all other countries, including all rights of priority from the filing of said application, and all rights for past infringement, and the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all patents on said inventions or resulting therefrom to said assignee herein, as assignee of the entire interest therein; and the undersigned for ourselves and our legal representatives, heirs and assigns do hereby agree and covenant without further remuneration, to execute and deliver all divisional, continuation, reissue and other applications for Patent on said inventions and all assignments thereof to said assignee or its assigns, to communicate to said assignee or its representatives all facts known to the undersigned respecting said inventions, whenever requested, to testify in any interferences or other legal proceedings in which any of said applications or patents may become involved, to sign all lawful papers, make all rightful oaths, and to do generally everything necessary to assist assignee, its successors, assigns and nominees to obtain patent protection for said invention in the United States and all other countries, the expenses incident to said applications to be borne and paid by said assignee.

Date: June 22, 2000

Takuya Sawada
Takuya SAWADA

Date: June 22, 2000

Masahiko Kimura
Masahiko KIMURA

Date: June 22, 2000
June 22, 2000

Akira Ando
Akira ANDO

Date: Koichi Hayashi - 6/22/00 KH

Koichi Hayashi
Koichi HAYASHI

LEGALIZATION RECOMMENDED

00455585.1

RECORDED: 07/24/2000

PATENT
REEL: 010945 FRAME: 0600