04/25/2001 GTON11 00000342 09775287

40.00 OP

01 80:581

U.S. DEPARTMENT OF COMMERCE

Patent & Trademark Office

RDATION FORM COVER SHEET

PATENTS ONLY

APR 1 4 900

101094500					
To the Honorable Commissioner of Panents and Trademark	s. Please record the attached original documents or copy thereof.				
1. Name of conveying party(ies):	2. Name and Address of receiving party(ies):				
See attached sheet	Name: Komatsu Denshi Kinzoku Kabushiki Kaisha				
Additional name(s) of conveying party(ies) attached?	Address: 2612, Shinomiya Hiratsuka-shi				
Yes No Nature of conveyance:	City: Kanagawa				
	State: Japan				
Other	Zip: 254-0014				
Execution date(s) of each conveying party:					
See attached sheet	Additional name(s) & address(es) attached? ☐ Yes ☒ No				
4(a). Patent Application No.(s): 09/775,287	Patent No.(s):				
If this document is being filed together with a new application	n, the execution date of the application is:				
Additional numbers	attached? Yes No				
5. Name and address of party to whom correspondence concerning this document should be mailed:	6. Total number of applications and patents involved: 1				
Name: Theodore M. Green Address: KILPATRICK STOCKTON LLP 2400 Monarch Tower 3424 Peachtree Road, N.E. Atlanta, Georgia 30326	7. Total fee (37 C.F.R. §3.41) enclosed: \$40				
DO NOT U	SE THIS SPACE				
8. Statement and signature.					
To the best of my knowledge and belief, the foregoing in of the original document.	nformation is true and correct, and any attached copy is a true copy				
Box Assignments, Commissioner of Patents & Trademar					
Theodo	gnature Date: April 13, 2001 Total number of pages including				
Theodore M. Green - Reg. No. 41,801	gnature Total number of pages including				
Name of Person Signing	cover sheet: 9				
Attorney Docket No. 45484-252991					
Mail documents to be recorded with required cover sheet inform					
5/2001 GTDN11 00000342 097752A7					
(19378)					

PATENT REEL: 011717 FRAME: 0748

RECORDATION FORM COVER SHEET PATENTS ONLY

U.S. Patent Application No. 09/775,287 Filed: February 1, 2001

Page 2

Name of Conveying Party	Execution Date				
Hiroshi Inagaki	January 15, 2001				
	January 15, 2001				
Shigeki Kawashima	1				
Makoto Kamogawa	January 17, 2001				
Toshirou Kotooka	January 17, 2001				
Toshiaki Saishoji	January 15, 2001				
Daisuke Ebi	January 18, 2001				
Kentaro Nakamura	January 15, 2001				
Kengo Hayashi	January 15, 2001				
Yoshinobu Hiraishi	January 17, 2001				
Shigeo Morimoto	January 22, 2001				
Hiroshi Monden	January 18, 2001				
Tadayuki Hanamoto	January 18, 2001				
Tadashi Hata	January 12, 2001				

PATENT REEL: 011717 FRAME: 0749

ASSIGNMENT

WHEREAS,

Hiroshi INAGAKI	, of Kanagawa	, <u>Japan</u> ,
Shigeki KAWASHIMA	, of Kanagawa	, <u>Japan</u> ,
Makoto KAMOGAWA	, of Kanagawa	, Japan ,
Toshirou KOTOOKA	, of Kanagawa	, Japan ,
Toshiaki SAISHOJI	, of Kanagawa	, <u>Japan</u> ,
Daisuke EBI	, of Kanagawa	
Kentaro NAKAMURA	, of Kanagawa	, <u>Japan</u> ,
Kengo HAYASHI	, of Kanagawa	
Yoshinobu HIRAISHI	, of <u>Kanagawa</u>	

Assignors, have invented a new and useful

APPARATUS FOR PULLING SINGLE CRYSTAL BY CZ METHOD, for which an application for United States Letters Patent was executed by them on or about the same date as this Assignment; and

WHEREAS, Assignors believe themselves to be the original, first and sole inventors of the invention disclosed and claimed in the application for Letters Patent; and

WHEREAS, KOMATSU DENSHI KINZOKU KABUSHIKI KAISHA, a Japanese corporation, having a place of business at 2612, Shinomiya Hiratsuka-shi, Kanagawa 254-0014 Japan, Assignee, desires to acquire by formal, recordable assignment the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors hereby sell, assign and transfer to Assignee, the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world, including the right to file foreign applications directly in the name of Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise.

for the invention in the United States and throughout the world; and

Further, Assignors agree that, upon request and without further compensation, but at no expense to Assignor, they and their legal representatives and assigns will perform all lawful acts, including the execution of papers and the

PATENT REEL: 011717 FRAME: 0750 giving of testimony, that might be necessary or desirable for obtaining, sustaining, reissuing or enforcing Letters Patent in the United States and throughout the world for the invention, and for perfecting, recording or maintaining the title of Assignee, its successors and assigns, to the invention, the application, and any Letters Patent granted for the invention in the United States and throughout the world.

Assignors represent and warrant that they have not granted and will not grant to others any rights inconsistent with the rights granted by this Assignment.

Assignors authorize and request the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the invention, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the invention.

IN WITNESS WHEREOF, Assignors have executed this Assignment.

Assignors

Date: 15/1/2001	Hiroshi Inagaki Hiroshi INAGAKI
Date: 15/1/200/	Shigeki Kawashima shigeki KAWASHIMA
Date: 17/1 / 200/	Makoto Kamogawa Makoto KAMOGAWA
Date: _/7 // / 200 /	Toshirou Kotooka Toshirou KOTOOKA
Date: _/5///200	Toshiaki SAISHOJI
Date:	Dajsuke Ebi Daisuke EBI

Date:	15/1/2001	Mentaro hakamura Kentaro NAKAMURA
Date:	15/1/2001	Kongo Hayashi Kengo HAYASHI
Date:	17/1/2001	Joshinolu Hiraishi Yoshinobu HIRAISHI

ASSIGNMENT

WHEREAS,

Shigeo MORIMOTO	_ , of _	Kanagawa	,_	Japar	ר	,	
Hiroshi MONDEN	, of	Kanagawa	,	Japa	n	,	
Tadayuki HANAMOTO	, of	Kanagawa	,	Japa	n	<u> </u>	
Assignors, have invented a new and useful							
_APPARATUS FOR	PULL	ING SINGLE	CRYST	AL BY	CZ	METHOD	_,
for which an application for United States Letters Patent was executed by them on							
or about the same date as this Assignment; and							

WHEREAS, Assignors believe themselves to be the original, first and sole inventors of the invention disclosed and claimed in the application for Letters Patent; and

WHEREAS, KOMATSU DENSHI KINZOKU KABUSHIKI KAISHA, a Japanese corporation, having a place of business at 2612, Shinomiya Hiratsuka-shi, Kanagawa 254-0014 Japan, Assignee, desires to acquire by formal, recordable assignment the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world; and

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors hereby sell, assign and transfer to Assignee, the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world, including the right to file foreign applications directly in the name of Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise.

Further, Assignors agree that, upon request and without further compensation, but at no expense to Assignor, they and their legal representatives and assigns will perform all lawful acts, including the execution of papers and the giving of testimony, that might be necessary or desirable for obtaining, sustaining, reissuing or enforcing Letters Patent in the United States and throughout the world for the invention, and for perfecting, recording or maintaining the title of Assignee, its successors and assigns, to the invention, the application, and any Letters Patent granted for the invention in the United States and throughout the world.

Assignors represent and warrant that they have not granted and will

1111 - t- 05)

not grant to others any rights inconsistent with the rights granted by this Assignment.

Assignors authorize and request the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the invention, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the invention.

IN WITNESS WHEREOF, Assignors have executed this Assignment.

Assignors

Date: _	122/1/266/	Shiger Ingrimation Shigeo MORIMOTO
Date: _	18/1/2001	Hiroshi Monden Hiroshi MONDEN
Data	18/1/2001	Jadayaki Idanomoto Tadayaki HANAMOTO
Date: _		Tadayaki HANAMOTO

ASSIGNMENT

WHEREAS,

Assignors, have invented a new and useful									
	APPARATUS	FOR	PULLING	SINGLE	CRYSTAL	BY	CZ	METHOD	,
for which an application for United States Letters Patent was executed by them on									
or about the same date as this Assignment; and									

Tadashi HATA , of Ehime , Japan ,

WHEREAS, Assignors believe themselves to be the original, first and sole inventors of the invention disclosed and claimed in the application for Letters Patent; and

WHEREAS, KOMATSU DENSHI KINZOKU KABUSHIKI KAISHA, a Japanese corporation, having a place of business at 2612, Shinomiya Hiratsuka-shi, Kanagawa 254-0014 Japan, Assignee, desires to acquire by formal, recordable assignment the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world; and

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignors hereby sell, assign and transfer to Assignee, the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world, including the right to file foreign applications directly in the name of Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise.

Further, Assignors agree that, upon request and without further compensation, but at no expense to Assignor, they and their legal representatives and assigns will perform all lawful acts, including the execution of papers and the giving of testimony, that might be necessary or desirable for obtaining, sustaining, reissuing or enforcing Letters Patent in the United States and throughout the world for the invention, and for perfecting, recording or maintaining the title of Assignee, its successors and assigns, to the invention, the application, and any Letters Patent granted for the invention in the United States and throughout the world.

Assignors represent and warrant that they have not granted and will not grant to others any rights inconsistent with the rights granted by this Assignment.

1

PATENT REEL: 011717 FRAME: 0755

Assignors authorize and request the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the invention, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the invention.

IN WITNESS WHEREOF, Assignors have executed this Assignment.

Assignors

Date: January 2001

Tadashi HATA

2