



06-03-2003



To the Honorable Commissioner of Patents

original documents or copy thereof.

1. Name of conveying party(ies):

102462545

Name of receiving party(ies):

Kyung-Bum Koo

Name: Samsung Electronics, Co., Ltd.

S-29-03

Internal Address:

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:

Street Address: 416, Maetan-dong, Paldal-gu,

Suwon-city, Kyungki-do, Republic of Korea

Assignment Merger

Security Agreement Change of Name

Other

City: State ZIP

Execution Date: May 16, 2003

Additional name(s) & address attached? Yes 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:

May 16, 2003

A. Patent Application No.(s)
10/385,077, filed March 10, 2003

B. Patent No.(s)

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Anthony P. Onello, Jr.

Internal Address: MILLS & ONELLO LLP

Street Address: Eleven Beacon Street, Suite 605

City: Boston State MA ZIP 02108

6. Total number of applications and registrations involved

1

7. Total fee (37 CFR 3.41)..... \$40.00

Enclosed
 Authorized to be charged to deposit account

8. Deposit Account Number:

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9. Statement and signature:

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.

Anthony P. Onello, Jr., Reg. No. 38,572

Name of Person Signing

Signature

May 27, 2003

Date

Total number of pages including cover sheet, attachments, and document 3

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Mail documents to be recorded with required cover sheet information to:
Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Reference No.: SAM-0196CIP

ASSIGNMENT

I, Kyung-Bum Koo, of 107-502, Samsung 4 Cha Apt., 663-1, Poondukchun-ri, Suji-eub, Yongin-shi, Kyunggi-do, Republic of Korea, having invented improvements in METHOD FOR FORMING AN ELECTRICAL INTERCONNECTION PROVIDING IMPROVED SURFACE MORPHOLOGY OF TUNGSTEN, described in an application for Letters Patent of the United States, Serial No. 10/385,077, filed March 10, 2003, for good and valuable consideration, receipt of which is hereby acknowledged from Samsung Electronics, Co., Ltd., a Korean corporation having a place of business at 416, Maetan-dong, Paldal-gu, Suwon-city, Kyungki-do, Republic of Korea (and hereinafter called the Assignee, which term shall include its successors and assigns), do hereby sell, assign and transfer unto the Assignee my entire right, title, and interest in and throughout the United States of America (including its territories and dependencies) and all countries foreign thereto, in and to and under said application (which term shall include hereinafter where the context so admits all divisional, continuing, reissue and other patent applications based thereon) and the inventions (which term shall include each and every such invention, or part thereof) therein described, and any and all patents and like rights of exclusion (including extensions thereof) of any country which may be granted on or for said inventions or on said application;

And for the same consideration I do also hereby sell, assign, and transfer unto the Assignee, all my rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and all other treaties of like purpose in respect of said inventions and said application, and I do hereby authorize the Assignee to apply in my name or its own name or its designee for patents and like rights of exclusion on or for said inventions in all countries, claiming (if the Assignee so desires) the priority of the filing date of said application under the provisions of said Convention, Treaty or any such other Convention or Treaty;

And for the same consideration, I do hereby agree for myself and for my heirs, executors, and administrators, promptly upon request of the Assignee to execute and deliver without further compensation any power of attorney, assignment, original, divisional, continuing, reissue or other application or applications for patent or patents or like rights of exclusion of any country, or other lawful documents and any further assurances that may be deemed necessary or desirable by the Assignee, fully to secure to it said right, title, and interest as aforesaid in and to said inventions, applications, and said several patents and like rights of exclusion (including extensions thereof) or any of them, all, however, at the expense of the Assignee, its successors, or assigns;

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America and the corresponding Official of each country foreign thereto to issue to the Assignee, any and all patents and like rights of exclusion which may be granted in any country upon said United States application on or for said inventions;

And I do hereby covenant for myself and my legal representatives and agree with the Assignee, that I have granted no right or license to make, use, or sell said inventions to anyone except the Assignee, that prior to the execution of this deed our right, title, and interest in and to said inventions has not been otherwise encumbered by me, and that I have not executed and will not execute any instruments in conflict herewith.

Reference No.: SAM-0196CIP

First or Sole Inventor:

Signature:



Kyung-Bum Koo

Date: May. 16, 2003

REFERENCE NO. SAM-0196CIP
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