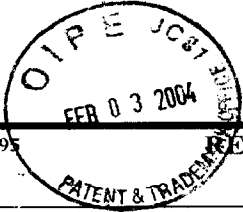


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Execution Date: January 9, 2004, January 19, 2004,  
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4. Application number(s) or patent number(s):  
If this document is being filed together with a new application, the execution date of the application is:  
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10/656,879

B. Patent No.(s)  
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23373  
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ASSIGNMENT

In consideration of the sum of ten dollars (\$10.00) and other good and valuable consideration paid to each of the undersigned, the undersigned agree to assign, and hereby do assign, transfer, and set over to:

Pioneer Corporation of 4-1, Meguro 1-chome, Meguro-ku,  
Tokyo, Japan

and

National Institute for Materials Science of 2-1, Sengen  
1-Chome, Tsukuba-shi, Ibaraki, Japan

(hereinafter designated as the "ASSIGNEE") the entire right, title, and interest for the United States and all foreign countries (including protection in foreign countries via the Patent Cooperation Treaty), in the invention, and all applications for patent and any Letters Patent which may be granted therefor, the application being known by the Title:

**HOLOGRAPHIC RECORDING MEDIUM AND HOLOGRAPHIC RECORDING/REPRODUCING  
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for which application for Letters Patent of the United States was executed on even date herewith unless otherwise indicated below:

filed on September 8, 2003,

serial No. 10/656,879

1. The undersigned agree to execute all papers necessary in connection with the application and any continuing or divisional applications thereof and also to execute separate assignments in connection with such applications as the ASSIGNEE may deem necessary or expedient.

2. The undersigned agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation or division thereof and to cooperate with the ASSIGNEE in every way possible in obtaining evidence and going forward with such interference.

3. The undersigned agree to execute all papers and documents and perform any act which may be necessary in connection with claims or provisions of the International Convention for Protection of Industrial property or similar agreements.

4. The undersigned agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent to the ASSIGNEE.

5. The undersigned hereby authorize and request the commissioner of Patents in the United States and the appropriate national or regional authority in each foreign country to issue any and all Letters Patents resulting from said application or any division or divisions or continuing applications thereof to the said ASSIGNEE, as ASSIGNEE of the entire interest, and hereby covenants that they have full right to convey the entire interest herein assigned, and that they have not executed and will not execute, any agreement in conflict herewith.

In witness whereof, executed by the undersigned on the date(s) opposite the undersigned names.

The undersigned hereby authorize the firm of

SUGHRUE MION, PLLC at the address of 2100 Pennsylvania Avenue,  
N.W., Washington, D.C. 20037-3213, U.S.A.

to insert hereon any further identification necessary or desirable for recordation of this document.

Jan. 9, 2004  
Date

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Date

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