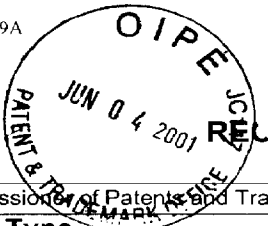


06-08-2001

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Name (line 1) Michael Execution Date: 5 4 2001

Name (line 2) HECKMEIER

**Second Party**

Name (line 1) Marcus Execution Date: 5 4 2001

Name (line 2) REUTER

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Name (line 1) MERCK PATENT Gesellschaft

Name (line 2) mit beschaenkrter Haftung

Address (line 1) Frankfurter Strasse 250

Address (line 2) \_\_\_\_\_

Address (line 3) DARMSTADT GERMANY D-64293

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Name Millen, White, Zelano & Branigan, P.C.

Address (line 1) 2200 Clarendon Boulevard

Address (line 2) Suite 1400

Address (line 3) Arlington, VA 22201

Address (line 4) \_\_\_\_\_

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**Patent Number(s)**

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

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Deposit Account

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Brion P. Heaney

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June 4, 2001

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Execution Date  
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Execution Date  
Month Day Year

Name (line 1)

Name (line 2)

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Address (line 1)

Address (line 2)

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**Application Number(s) or Patent Number(s)**

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**Patent Application Number(s)**

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**Patent Number(s)**

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WHEREAS the below named inventor (if only one inventor is named below) of inventors (if plural inventors are named below) hereinafter referred to as the ASSIGNOR invented a certain improvement relating to

**Electro-optical liquid-crystal display and liquid-crystal medium**

- for which an application for Letters Patent to be filed in the United States Patent and Trademark Office was executed on even date.
- for which U.S. Application Serial No. 09/836,860 for Letters Patent was filed in the U.S. Patent and Trademark Office on April 18, 2001
- for which an International Application was filed on \_\_\_\_\_ as \_\_\_\_\_, designating the United States

AND WHEREAS

**MERCK PATENTGESELLSCHAFT  
MIT BESCHRÄNKTER HAFTUNG  
Darmstadt, Germany**

hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted thereon, including any and all renewals, reissues, reexaminations and extensions thereof.

NOW, WITNESSETH that for good and valuable consideration, the receipt whereof is hereby acknowledged, ASSIGNOR hereby assigns, sells, and transfers to ASSIGNEE, its assigns and legal representatives, the entire and exclusive right, title and interest in and to said invention and application, including any and all divisions and continuations thereof, and any and all Letters Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, and in and to any and all priority and/or conventions rights or benefits accruing or to accrue with respect to the filing or securing of patents in the United States and/or any countries foreign thereto, SAID ASSIGNEE its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all divisions and continuations thereof, and any and all Letter Patent which may be granted therefor, including any and all renewals, reissues, reexaminations and extensions thereof, with all the rights, powers, privileges and advantages in anywise arising from or appertaining thereto, for and during the term or terms of any and all such Letters Patent when granted, including any and all renewals, reissues, reexaminations and extension thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as simple and beneficial a manner to all intents and purposes as the ASSIGNOR might or could have held and enjoyed the same, if the assignment had not been made.

AND ASSIGNOR hereby agrees to executed all papers that may be necessary to file applications in the United States and foreign countries for said invention and to assign the same to said ASSIGNEE, its assigns and legal representatives and to executed any other papers that may be needed in connection with filing said applications and securing Letters Patents thereon.

AND ASSIGNOR authorizes and requests the Commissioner of Patents and Trademarks to issue a Letters Patent on said application, and on any and all divisions and continuations thereof, to ASSIGNEE, its assigns, and legal representatives, in accordance herewith.

The undersigned hereby grant(s) the law firm of Millen, White, Zelano & Branigan, P.C. the power to insert on this assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN TESTIMONY THEREOF this assignment os executed by ASSIGNOR

201 FULL NAME OF SOLE INVENTOR OF FIRST NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
Michael Heckmeier	<i>Michael Heckmeier</i>	May 4, 2001
202 FULL NAME OF SECOND JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Marcus Reuter	<i>Marcus Reuter</i>	May 4, 2001
203 FULL NAME OF THIRD JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Volker Reiffenrath	<i>Volker Reiffenrath</i>	May 4, 2001
204 FULL NAME OF FOURTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
205 FULL NAME OF FIFTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
206 FULL NAME OF SIXTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
207 FULL NAME OF SEVENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
208 FULL NAME OF EIGHTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
209 FULL NAME OF NINETH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
210 FULL NAME OF TENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
211 FULL NAME OF ELEVENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
212 FULL NAME OF TWELFTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE