Form PTO-1595 07 - 29 - 2	2005			
REC	U.S. DEPARTMENT OF COMMERCE			
(Rev. 10/02) OMB No. 0651-0027 (exp. 6/30/2005)	U.S. Patent and Trademark Office			
To the Honorable Commissioner of Patent and Tradema	464 arks: Please record the attached documents or copy thereof.			
1. Name of conveying party(ies):	2. Name and address of receiving party(ies): Name: Merck Patent GmbH			
Robert HAMMOND-SMITH Rodney RIDDLE				
John PATRICK				
\sim	Street Address: Frankfurter Strasse 250			
Additional name(s) of conveying party(ies) attached? Yes No	City: Darmstadt State: GERMANY Zip:D-64293			
3. Nature of Conveyance:				
Assignment				
☐ Security Agreement ☐ Change of Name	No additional names(s) or address(es) attached 🔲 Yes 🖾 No			
Other				
Execution Date: November 16, 2004	Execution Date: November 16, 2004			
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: November 16, 2004				
A. Patent Application No.(s) B. Patent No.(s)				
1/12/1005 MKAYPAGH 00000054 10520063 \				
5. Name and address of party to whom correspondence concerning documentshould be mailed:	6. Total number of applications and patents involved: 1 7. Total fee (37CFR 3.41) \$40.00			
concerning documents notice to maneed.	7. Total fee (5/CFR 5.41) \$40.00			
Name: MILLEN, WHITE, ZELANO				
& BRANIGAN, P.C.	Authorized to be charged to deposit account			
Address: Arlington Court Plaza I Suite 1400	8. DEPOSIT ACCOUNT NO. 13-3402			
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9. Statement and Signature.				
To the hest of my knowledge and helia	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 J. Zelano	<u>January 5, 2005</u>			
Names of Person Signing Signature	Date			
1				
Total number of pages including cover sheet, attachments, and documents 2				

Attorney Docket No. MERCK-2962

PATENT REEL: 016806 FRAME: 0595

ASSIGNMENT

ATTY. DOCKET NO .:

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

$\mathcal{H}A$	KES COMPRISING NON-CHIRAL LIQUID CRYSTAL MATERIAL			
	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. for Letters Patent was filed in the U.S. Patent and Trademark Office on			
Þ	for which an International Application was filed on 06.06.2003 as PCT/EP2003/00SJS/, designating the United States.			
	AND WHEREAS MERCK PATENT GESELLSCHAFT 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(s), including any and all earlier priority rights (U.S. and foreign), 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(s), 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 U.S. (including provisional) or foreign priority and/or convention 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 concerning said invention, SAID ASSIGNEE, its assigns and legal representatives to have, hold, exercise, and enjoy said invention and application, including any and all earlier priority rights (U.S. and foreign), 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, 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 extensions thereof, for the use and benefit of ASSIGNEE and its assigns and legal representatives, in as ample 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 execute 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 execute 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 WHEREOF this assignment is executed by ASSIGNOR

201 FULL NAME OF SOLE OR FIRST NAMED INVENTOR	INVENTOR'S SIGNATURE	DATE
Robert Hammond-Smith	R Manual Smith	16.41.04
202 FULL NAME OF SECOND JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Rodney Riddle	R Ridalle	16. M. 04
203 FULL NAME OF THIRD JOINT INVENTOR	VINVENTOR'S SIGNATURE	DATE
John Patrick	Patrik	16. M.04
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 NINTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
210 FULL NAME OF TENTH JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE

PATENT RECORDED: 01/05/2005 REEL: 016806 FRAME: 0596