

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen
(D) [] No distribution

**Datasheet for the decision
of 23 September 2009**

Case Number: T 0369/07 - 3.3.01

Application Number: 97922299.9

Publication Number: 0853647

IPC: C09B 11/00

Language of the proceedings: EN

Title of invention:
Fluorinated xanthene derivatives

Applicant:
Molecular Probes, Inc.

Opponent:
-

Headword:
Fluorinated xanthene derivatives/MOLECULAR PROBES, INC.

Relevant legal provisions:
EPC Art. 123(2)(3), 111(1), 100(a)(b), 54(2)

Relevant legal provisions (EPC 1973):
-

Keyword:
"Added matter (no) - basis in the application as originally
filed"
"Novelty (yes) - not unambiguously disclosed"
"Remittal (yes) - ground of decision under appeal overcome"

Decisions cited:
T 0007/86

Catchword:
-



Case Number: T 0369/07 - 3.3.01

D E C I S I O N
of the Technical Board of Appeal 3.3.01
of 23 September 2009

Appellant: Molecular Probes, Inc.
(Patent Proprietor) 29851 Willow Creek Road
Eugene
OR 97402-9132 (US)

Representative: Harrison Goddard Foote
Belgrave Hall
Belgrave Street
Leeds LS2 8DD (GB)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 11 January 2007
revoking European patent No. 0853647 pursuant
to Article 102(1) EPC.

Composition of the Board:

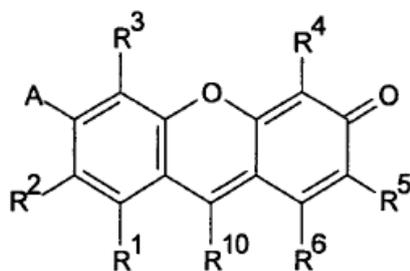
Chairman: P. Ranguis
Members: J.-B. Ousset
R. Menapace

Summary of Facts and Submissions

- I. An appeal was lodged by the patent proprietor against the decision of the opposition division to revoke the patent EP-B-0 853 647 for lack of novelty.
- II. The opposition underlying said decision to revoke the patent in suit in its entirety was based on Article 100(b) EPC and on Article 100(a) EPC (lack of novelty and lack of inventive step). In its decision, the opposition division considered that the granted version of the claims and the nine auxiliary requests submitted by the patentee (here appellant) were lacking novelty vis-à-vis the following documents:
- (3) WO-A-95/14689
- (4) US-A-4,318,846
- The objections raised by the opponent under Article 100(b) EPC and 100(a) (lack of inventive step) were not decided upon by the opposition division.
- III. With the statement setting out the grounds of appeal, the appellant (patentee) provided a main request and four auxiliary requests.
- IV. In response to the appellant's statement setting out the grounds of appeal, the respondent (opponent) disputed novelty and inventive step of the appellant's requests, without however providing any argument to support the objection raised under Article 100(b) EPC.
- V. With a letter of 9 February 2009, the respondent withdrew the opposition.

- VI. With a letter of 23 March 2009, the appellant filed a new main request and renumbered the previously filed requests as first to fifth auxiliary requests.
- VII. With a letter of 21 September 2009, the appellant submitted a further set of claims as main request, while maintaining the other requests as auxiliary requests in the former order of preference.
- VIII. Independent claims 1, 20 and 23 of the main request submitted on 21 September 2009 read as follows:

"1. A compound having the formula



Wherein

R¹ and R⁶ are independently H, F, Cl, Br, I, C₁-C₁₈ alkyl or C₁-C₁₈ alkoxy;

R² and R⁵ are F; R³ and R⁴ are independently H, Cl, Br, I, CN; or C₁-C₁₈ alkyl, where each alkyl is optionally further substituted by F, Cl, Br, I, sulfonic acid, salt of sulfonic acid, carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a C₁-C₆ alcohol, a carboxylic acid ester of -CH₂-O-(C=O)-R¹⁸ where R¹⁸ is a C₁-C₆ alkyl, or amino, alkylamino, dialkylamino, or alkoxy, the alkyl portions of which independently have 1-6 carbons; or one or both of R³ and

R^4 are $-\text{CH}_2\text{N}(\text{CR}^{19}\text{HCOOR}^{17})_2$, where R^{19} is H or a $\text{C}_1\text{-C}_6$ alkyl, R^{17} is H, a biologically compatible counterion, a linear or branched alkyl having 1-6 carbons, or $-\text{CH}_2\text{-O-(C=O)-R}^{18}$;

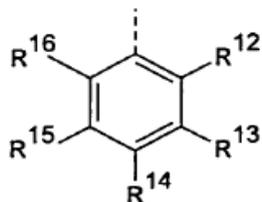
A is OR^7 ,

where each R^7 is independently H, $\text{C}_1\text{-C}_{18}$ alkyl or a $\text{C}_1\text{-C}_{18}$ acyl that is optionally substituted by amino, hydroxy, carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a $\text{C}_1\text{-C}_6$ alcohol, a carboxylic acid ester of $-\text{CH}_2\text{-O-(C=O)-R}^{18}$; or a trialkylsilyl wherein each alkyl group independently has 1-6 carbons; or a BLOCK

wherein each BLOCK moiety is independently a monovalent moiety derived by removal of a hydroxy group from phosphate or from sulfate, or a biologically compatible salt thereof; or a monovalent moiety derived by removal of a hydroxy group from a carboxy group of an aliphatic or aromatic carboxylic acid or of an amino acid, protected amino acid, peptide, or protected peptide; or a monovalent moiety derived by removal of a hydroxy group from an alcohol or from a mono- or polysaccharide, where said BLOCK is selected to be removable from said compound by action of an enzyme; or BLOCK is a photolabile caging group;

R^{10} is F, carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a $\text{C}_1\text{-C}_6$ alcohol, or a carboxylic acid ester of $-\text{CH}_2\text{-O-(C=O)-R}^{18}$; or R^{10} is $\text{C}_1\text{-C}_{18}$ alkyl, alkenyl or alkynyl that is optionally substituted one or more times by F, Cl, Br, carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a $\text{C}_1\text{-C}_6$ alcohol, a carboxylic acid ester of $-\text{CH}_2\text{-O-(C=O)-R}^{18}$, sulfonic acid, salt of sulfonic acid, amino, alkylamino, or dialkylamino, the alkyl groups of

which have 1-6 carbons; or R^{10} is an aryl moiety of the formula



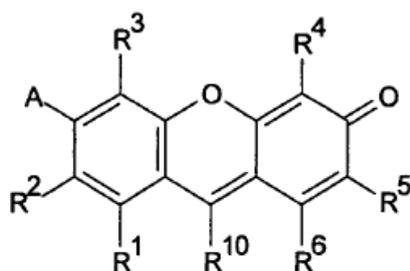
where R^{12} , R^{13} , R^{14} , R^{15} and R^{16} are independently H, F, Cl, Br, I; or sulfonic acid, salt of sulfonic acid, carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a C_1 - C_6 alcohol, a carboxylic acid ester of $-CH_2-O-(C=O)-R^{18}$, CN, nitro, hydroxy, azido, amino, hydrazino; or C_1 - C_{18} alkyl, C_1 - C_{18} alkoxy, C_1 - C_{18} alkylthio, C_1 - C_{18} alkylamino, C_1 - C_{18} alkylester, C_1 - C_{18} alkylamido or C_1 - C_{18} arylamido, the alkyl or aryl portions of which are optionally substituted one or more times by F, Cl, Br, I, hydroxy, carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a C_1 - C_6 alcohol, a carboxylic acid ester of $-CH_2-O-(C=O)-R^{18}$, sulfonic acid, salt of sulfonic acid, amino, alkylamino, dialkylamino or alkoxy, the alkyl portions of each having 1-6 carbons; or one pair of adjacent substituents R^{13} and R^{14} , R^{14} and R^{15} or R^{15} and R^{16} , when taken in combination, form a fused 6-membered aromatic ring that is optionally further substituted by carboxylic acid, a salt of carboxylic acid, a carboxylic acid ester of a C_1 - C_6 alcohol, a carboxylic acid ester of $-CH_2-O-(C=O)-R^{18}$; or wherein at least one of R^7 , R^{10} , R^{12} , R^{13} , R^{14} , R^{15} and R^{16} is $-L-R_x$ or a $-L-S_c$, where each $-L-R_x$ and/or $-L-S_c$ is the same or different; and

L is a single covalent bond, or L is a covalent linkage having 1-24 nonhydrogen atoms selected from the group consisting of C, N, O and S and is composed of any combination of single, double, triple or aromatic carbon-carbon bonds, carbon-nitrogen bonds, nitrogen-nitrogen bonds, carbon-oxygen bonds and carbon-sulfur bonds;

R_x is a reactive site; and

S_c is a conjugated substance."

"20. A compound having the formula



I

Wherein

R¹, R², R³, R⁴, R⁵, R⁶ and A are as defined in Claim 3;

and exactly one of R⁷ and R¹⁰ is -L-S_c;

wherein L is a single bond, or L is a covalent linkage having 1-24 nonhydrogen atoms selected from the group consisting of C, N, O and S and is composed of any combination of single, double, triple or aromatic carbon-carbon bonds, carbon-nitrogen bonds, carbon-oxygen bonds and carbon-sulfur bonds; and

S_c is a conjugated substance that is an ion-complexing moiety."

"23. A method of staining a biological sample, comprising the steps of:

- a) preparing a dye solution comprising a dye compound as in any of Claims 1 to 22 in a concentration sufficient to yield a detectable optical response under the desired conditions;
- b) combining the sample of interest with the dye solution for a period of time sufficient for the dye compound to yield a detectable optical response upon illumination; and
- c) illuminating said sample at a wavelength selected to elicit said optical response."

IX. During the written procedure, the appellant submitted as far as they are relevant for the present decision, the following arguments:

- Claim 1 of the main request did not contain any added matter, since it was based on claim 3 as granted. The deletion of one of the formula present in the granted version was allowable under Article 123(2) EPC. A support for the groups R^2 and R^5 being F was to be found on page 6, lines 28 and 29 of the description as originally filed. The deletion of the values F, alkoxy and alkylthio from the list of substituents R^3 and R^4 did not contravene Article 123(2) EPC. The same reasons applied for the deletions of the values $-L-R_x$ and $-L-S_c$ from the list of the values taken by the substituents R^2 to R^5 .
- Novelty was restored vis-à-vis document (3), since the substituents R^3 and R^4 did not represent a fluorine atom in the compounds claimed in claim 1.

An oxyether is no longer present as a possible value for the substituents R² to R⁵. Thus, the claimed subject-matter was also novel vis-à-vis document (4).

- X. Oral proceedings took place on 23 September 2009 before the board, during which the appellant withdrew all the auxiliary requests and requested that the decision under appeal be set aside and that the case be remitted to the department of the first instance for further prosecution on the basis of the set of 25 claims filed on 21 September 2009.
- XI. At the end of the oral proceedings, the decision of the board was announced.

Reasons for the Decision

1. The appeal is admissible.
2. *Amendments*
 - 2.1 The description as originally filed discloses on page 3, lines 20 to 25 that compounds of formula I represent dyes of the present invention. The limitation of the scope of the claims by specifying the type of dyes is thus fully supported by the description as originally filed.

The specific limitation of the values taken by the groups R² and R⁵ to the single value F in combination with the nature of the group A being -OR⁷ is also

supported by the description as originally filed (page 6, lines 28 to 29).

The list of values taken by the substituents R^3 and R^4 has been limited by deletion of the values F, C_1 - C_{18} -alkoxy and C_1 - C_{18} -alkylthio. These deletions limit the length of the said list without limiting it to a specific value. The values taken by the substituents R^3 and R^4 therefore remain generic.

That the groups R^7 , R^{10} , R^{12} , R^{13} , R^{14} , R^{15} and R^{16} can be $-L-S_c$ or $-L-R_x$ is supported by claims 4 and 5 as originally filed. These claims are dependent of compound claim 3.

The different values for the group R^{11} have been rendered superfluous and thus deleted from claim 1 as a consequence of the deletion of the compounds of formula II, which contain this substituent.

The definition of "BLOCK" in the group R^7 was present in claim 6 as originally filed, said claim being dependent of claim 3 as originally filed.

- 2.2 Under these circumstances, the several deletions made by the appellant did not result in an extension of the protection (Article 123(3) EPC) and the subject-matter of claim 1 remains a generic group of compounds differing from the original one only by the (smaller) number of compounds embraced.
- 2.3 The dependent claims 2 to 19 have been renumbered accordingly and amended so as to now be consistent with the deletion of the compounds of formula II. Claim 20

is supported by claim 5 as originally filed and amended so as to be consistent with the new scope of claim 3. Process claim 23 corresponds to claim 32 as originally filed and amended so as to be consistent with the numbering of the claims. Claim 24 corresponds to the combinations of the originally filed depending claims 33 and 34. Claim 25 corresponds to claim 37 as originally filed.

2.4 Consequently, the main request fulfils the requirements of Articles 123(2) and (3) EPC.

3. *Sufficiency of disclosure*

3.1 With its statement setting out the grounds of opposition, the opponent also questioned the validity of the patent in suit on the basis of lack of sufficient disclosure (Article 100(b) EPC). The box corresponding to this ground of opposition was not only ticked on the Notice of Opposition but an argument was also provided in the said statement. This ground was thus sufficiently substantiated and belongs to the legal framework of the opposition.

3.2 Since the opposition division decided that none of the requests on file before it was novel, it was not examined before the first instance whether the patent in suit was sufficiently disclosed in accordance with the requirements of Article 100(b) EPC.

3.3 In the appeal procedure, the respondent did not pursue the objection based on Article 100(b) EPC (point IV above). Moreover, this objection concerned the process for making fluorinated resorcinol derivatives, said

process being no longer present in the main and sole request of the appellant.

3.4 In view of the examples described in the patent in suit (pages 22 to 59), the board is convinced that the claimed invention can be reproduced in accordance with Article 100(b) EPC.

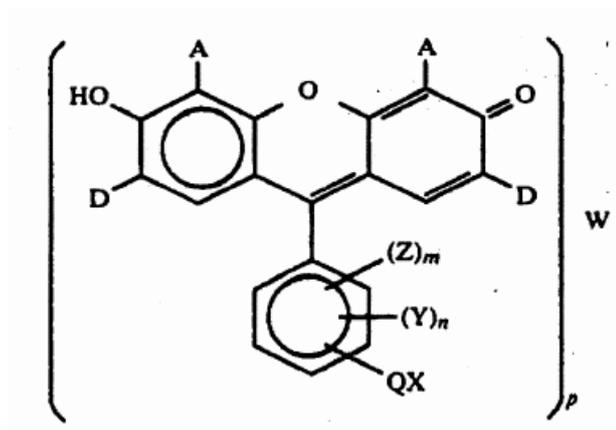
4. *Novelty*

4.1 The lack of novelty of the compound claims was objected to on the basis of the disclosures of the documents (3) and (4).

4.2 Document (3) discloses xanthene derivatives in which the phenyl rings can *inter alia* be substituted by halogen atoms (see substituents R¹ to R⁴ corresponding respectively in the compounds of formula I of claim 1 of the main request to the substituents R⁴, R³, R⁵ and R²). Furthermore, two examples disclosed in document (3) are xanthene derivatives in which all the groups R¹ to R⁴ are fluorine (see claim 13, page 52, lines 5 and 12). However, the compounds of formula I of claim 1 and 20 of the patent in suit all have a fluorine atom at the positions R² and R⁵ (corresponding to the positions R³ and R⁴ of the compounds III of document (3)) and at the positions R³ and R⁴ (corresponding to the positions R¹ and R² of the compounds III of document (3)) cannot be substituted by a fluorine atom. The specific combinations of features shared by all the alternatives claimed for the compounds of formula I of the patent in suit are neither generically disclosed nor specifically exemplified in document (3). In view thereof, novelty

of claims 1 and 20 of the patent in suit is acknowledged vis-à-vis document (3).

4.3 Document (4) generically describes xanthene derivatives of formula



wherein the two As are the same or different, normally being the same and the two Ds are the same or different, normally being the same. Either the As or the Ds are chalcogen ethers, usually oxyethers, or halo having an atomic number of 9 to 53. This embraces the fluorine atom (atomic number 9).

To arrive at the compounds defined in claims 1 and 20, the skilled person must make a first selection so that both D are halo and then make a second selection to choose for both D the fluorine atom (see claims 1 and 20 of the patent in suit, wherein R^2 and R^5 are F). Furthermore, document (4) mentions that the preferred halogen atoms attached to the phenyl rings of the xanthene derivatives are chlorine or iodine (see column 8, lines 37 to 38). Hence neither in the generic formula nor in the preferred generic formula nor in the examples, the common feature shared by all the xanthene derivatives of claims 1 and 20 of the main request is

mentioned. Novelty of the subject-matter of claim 1 of the main request is thus acknowledged in view of the disclosure of document (4) as resulting from a multiple selection (T 7/86, OJ EPO 1988, 381).

4.4 These findings apply to claims 2 to 25 of the main request.

4.5 In view of the conclusions of the paragraphs 4.2 and 4.4, the subject-matter of the main request fulfils the requirements of Article 54(2) EPC.

5. *Remittal*

5.1 As the subject-matter of the main request meets the requirements of Article 54 EPC, the sole ground for the revocation of the patent in suit by the department of the first instance (see II above) has been overcome.

5.2 Having regard to the fact that the function of the boards of appeal is primarily to give a judicial decision upon the correctness of the earlier decision taken by the department of the first instance, the board exercises its discretion under Article 111(1) EPC to remit the case to the department of the first instance for the assessment of inventive step.

5.3 Concerning the assessment of the inventive step, the opposition division should draw the attention of the appellant to claim 20 of the patent in suit, wherein the substituents R¹ to R⁶ are defined by reference to claim 3 and not claim 1 (page 45, line 47). It might well be a clerical error since the set of claims is a hand-written copy of the claims as granted where in

claim 36, the said substituents were defined by reference to claim 3.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of the first instance for further prosecution on the basis of the set of claims filed on 21 September 2009.

The Registrar:

The Chairman:

B. Atienza Vivancos

P. Ranguis