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D E C I S I O N
of 19 April 2000

Case Number: T 0159/95 - 3.3.1

Application Number: 87116148.5

Publication Number: 0267524

IPC: C09B 62/04

Language of the proceedings: EN

Title of invention:
Fiber reactive compound having sym-triazine and aminobenzoylamine moieties

Patentee:
Sumitomo Chemical Company, Limited

Opponent:
Bayer AG

Headword:
Fibre reactive compounds/BAYER

Relevant legal provisions:
EPC Art. 123(2),(3), 54(2), 56, 111(1), 113(1)
EPC R. 71(2)

Keyword:
"Main and auxiliary request I: disclaimer - not allowable"
"Auxiliary requests II and III: inventive step (no) - obvious solution"
"Auxiliary requests IV: inventive step (yes) - non obvious solution"

Decisions cited:
T 0001/80, T 0181/82, T 0002/83, T 0007/86, T 0170/87, T 0917/94, T 0645/95, T 0863/96, T 0013/97

Catchword:
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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0159/95 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 19 April 2000

Appellant: (Opponent)
BAYER AG, Leverkusen
Konzernverwaltung RP
Patente Konzern
Bayerwerk
D-51368 Leverkusen (DE)

Representative:
-

Respondent: (Proprietor of the patent)
Sumitomo Chemical Company, Limited
5-33, Kitahama 4-chome
Chuo-ku
Osaka 541-8550 (JP)

Representative:
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Postfach 86 07 67
D-81634 München (DE)

Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 12 December 1994 concerning maintenance of European patent No. 0 267 524 in amended form.

Composition of the Board:

Chairman: A. J. Nuss
Members: P. F. Ranguis
R. T. Menapace

Summary of Facts and Submissions

I. The Appellant (Opponent) lodged an appeal against the interlocutory decision of the Opposition Division posted on 12 December 1994 which found that European patent No. 0 267 524 (European patent application No. 87 116 148.5) as amended during opposition proceedings met the requirements of the EPC.

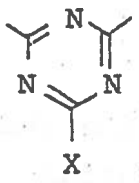
II. The opposition to the patent in its entirety was based on the ground that the claimed subject-matter lacked novelty and inventive step (Article 100(a) EPC) and was supported by three documents, i.e.

(1) EP-A- 0 040 806
(2) JP-A- 82/74363
(3) JP-A- 5000178

III. The decision under appeal was based on claims 1 to 11 for contracting states BE, CH, DE, FR, GB, IT, LI, NL and SE and on claims 1 to 9 for contracting state ES.

Independent claim 1, for contracting states other than ES, reads as follows:

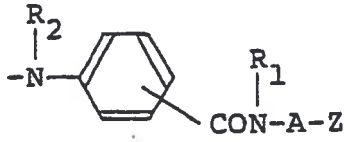
"Compounds having (1) a dye moiety, (2) at least one sym-triazine moiety of the following general formula (I),



(I)

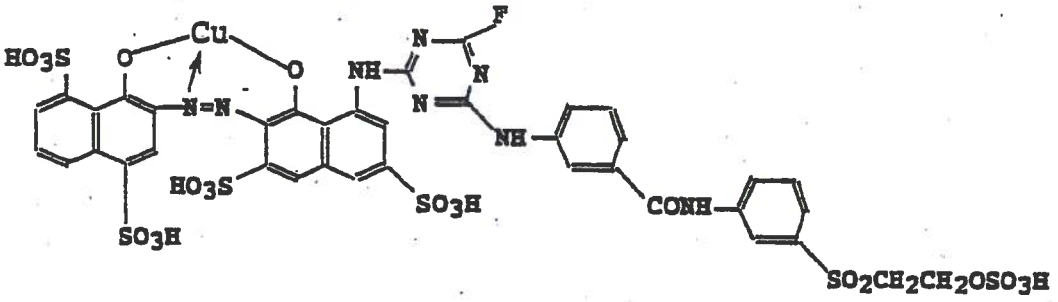
wherein X is chloro or fluoro, and (3) at least one aminobenzoylamine moiety of the following general

formula (II),



(II)

wherein R_1 and R_2 independently of one another are each hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl, A is unsubstituted phenylene or naphthylene unsubstituted or substituted by sulfo, and Z is $-SO_2CH=CH_2$ or $-SO_2CH_2CH_2Y$ in which Y is a group splittable by the action of an alkali
wherein the dye moiety bonds to the one hand of the sym-triazine moiety through imino, and the aminobenzoylamine moiety bonds to the other hand of the sym-triazine moiety,
with the proviso that the compound of the following formula



is excluded".

Independent claim 9, for contracting states other than ES, relates to a process for producing a compound according to any one of claims 1 to 8 (claims 2 to 8 being dependent on claim 1).

Independent claim 10, for contracting states other than ES, relates to a process for dyeing or printing fiber materials, which comprises using a compound according to any one of claims 1 to 8 (claims 2 to 8 being dependent on claim 1).

Independent claim 11, for contracting states other than ES, relates to fiber materials dyed or printed by the process of claim 10.

IV. The Opposition Division held that,

- disclaiming the compound disclosed in example No. 90 of document (1) conferred novelty on the subject-matter of independent claim 1 (see point III above),

- the compound in example No. 90 did not fall within the scope of the claims of document (1) and might only be regarded on an individual basis. Furthermore, apart from the reference to dye production, the description provided no further characteristics of compound No. 90, save for its blue colour. In document (1) therefore there was no suggestion that compounds according to the opposed patent might be advantageous in any way and there was no teaching or suggestion as to how to produce them. Hence, the compound in example No. 90 could not be considered the closest state of the art,

- the compound in example No. 10 of document (2) (the same as the compound in example No. 8 in document (3)), which differed from the compounds of the contested patent in that the phenyl ring carrying the β-sulfatoethylsulfonyl group was substituted by a methoxy group, was to be regarded as the closest state of the art,

- the comparative test provided by the Patentee, in which the compound in example No. 10 of document (2) was compared to a similar compound without a methoxy group according to the contested patent (the compound in example No. 10), conclusively showed an increase in relative colour yield for the claimed subject-matter,

- the person skilled in the art was not led by the disclosure of documents (2) and (3) or by the disclosure of document (1), either separately or in combination, to arrive in an obvious manner at the subject-matter of amended claim 1. Dependent claims 2-8, as well as independent claims 9, 10 and 11, likewise met the requirements of the EPC.

V. During the written proceedings, the Appellant in essence argued as follows:

- Contrary to the opinion of the Opposition Division, compound No. 90 according to document (1) was structurally closer to the claimed subject-matter than the compound in example No. 10 in document (2) and was therefore to be considered the closest state of the art. The Opposition Division had also admitted that, in terms of structure, the difference between the disclosure of document (1) and the claimed subject-matter was smaller than that between the disclosure of document (2) and said claimed subject-matter.

- Furthermore, the compounds in examples Nos. 84-92 of document (1) were described therein as "valuable dyestuffs according to the invention with good authenticity" (see description page 66).

- The fact that compound No. 90 was deleted from the granted patent and that no divisional application

had been filed could not render this disclosure ineffective.

- No technical problem was solved by the claimed subject-matter in view of the disclosure of this compound and the claimed invention therefore lacked prima facie inventive step.

VI. The Respondent (Patentee) disagreed and presented the following arguments in the written proceedings:

- The teaching of document (1) is intended to improve azo dyes known from document DE-A-2 927 102 cited in the introductory part of said document (1). Dyes according to document DE-A-2 927 102 differ from the dyes of document (1) by the absence of the $(X\text{-}SO_2)_n$ group directly linked to the chromophore. The invention of document (1) is **characterised** by the presence of a $(X\text{-}SO_2)_n$ group directly linked to the chromophore as set out in formula (1).

- The person skilled in the art would have recognised that only compounds having a $(X\text{-}SO_2)_n$ group directly linked to the chromophore were compounds falling within the scope of document (1). Furthermore, it clearly emerged from document (1), page 47, lines 9 to 11 that compounds according to the invention were those of formula (I). Thus the phrase "according to the invention" cited by the Appellant (see point V above) referred to the compounds of formula (I) of document (1). There was therefore no connection between the single individualised disclosure of example No. 90 and the invention as set out in document (1), as demonstrated by the fact that during the examining proceedings for the latter,

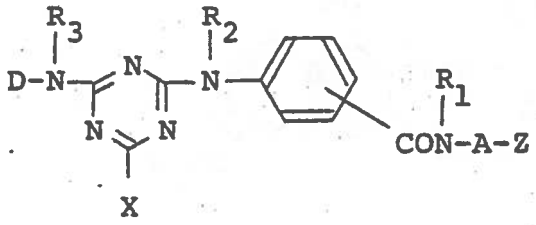
the Applicant had deleted said example No. 90. It was therefore merely speculative to allege that the attributes "valuable" and "dye having good properties" should be associated with compounds other than those according to formula (1) of document (1).

- The person skilled in the art, in view of the individualised independent compound in example No. 90, would have had no incentive to devise the present invention without hindsight given that this example did not provide a sound technical teaching leading to the subject-matter of the patent in suit. According to well- established case law, the person skilled in the art **would not** have considered, in view of the said example, the solution as now claimed. The fact that after deletion of example No. 90 no divisional application had been filed confirmed the poor disclosure in this example.

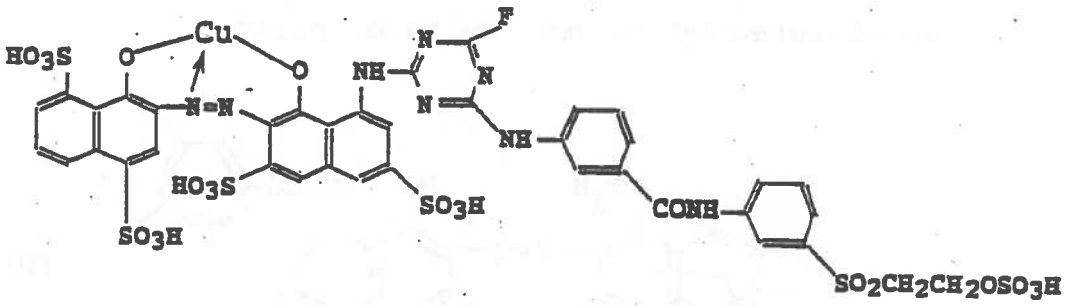
VII. At the oral proceedings which took place on 19 April 2000, the Respondent, having been made aware that the Board saw another objection under Article 123(2) EPC regarding the disclaimed subject-matter, in addition to the main request (see point III above) submitted four sets of claims as auxiliary requests I, II, III and IV. Claim 1 of each request for contracting states other than ES is quoted below as far as necessary in the context of this decision.

a) **Auxiliary request I**

1. Compounds according to the following general formula,



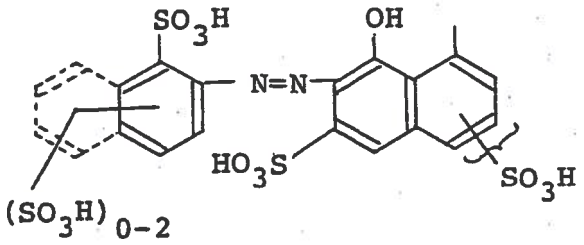
wherein X is chloro or fluoro, R_1 and R_2 independently of one another are each hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl, A is unsubstituted phenylene or naphthylene unsubstituted or substituted by sulfo, and Z is $-SO_2CH=CH_2$ or $-SO_2CH_2CH_2Y$ in which Y is a group splittable by the action of an alkali, R_3 is hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl and D is an anionic dye moiety with the proviso that the compound of the following formula



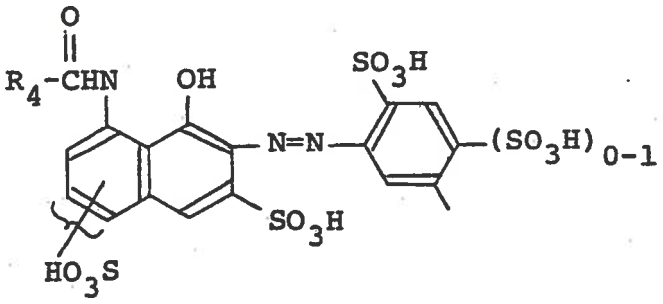
is excluded.

b) **Auxiliary request II**

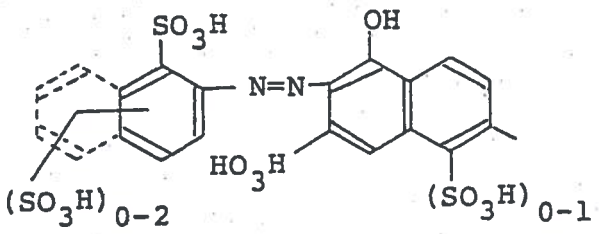
1. Compounds having (1) a dye moiety wherein the dye moiety is the one represented by the following formulas (A) to (M),



(B)

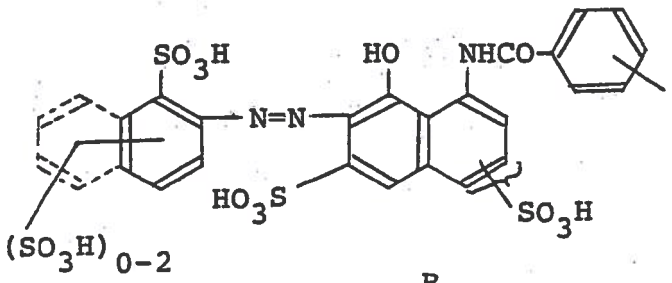


(C)

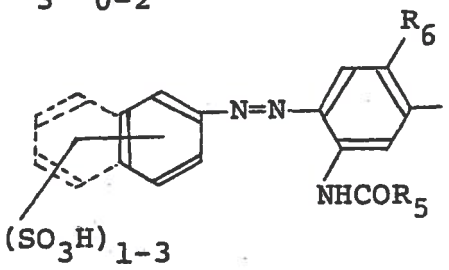


(A)

wherein R_4 is C_{1-4} alkyl or phenyl unsubstituted or substituted by chloro, sulfo or nitro;

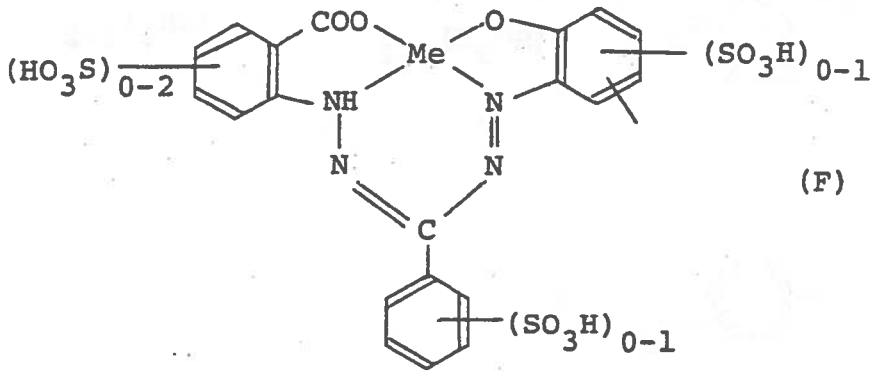


(D)



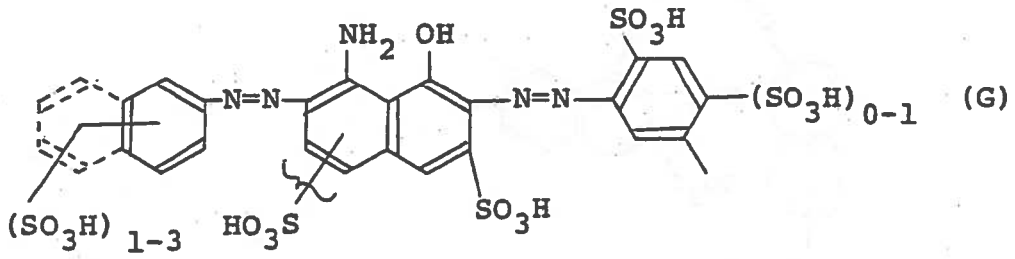
(E)

wherein R_5 is amino, C_{1-4} alkyl or phenyl, and R_6 is hydrogen, C_{1-4}alkyl or C_{1-4}alkoxy;

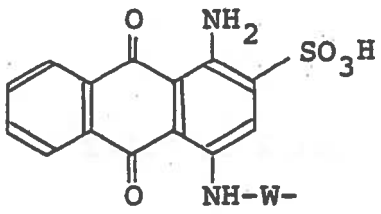


(F)

wherein Me is Cu, Ni or Co;

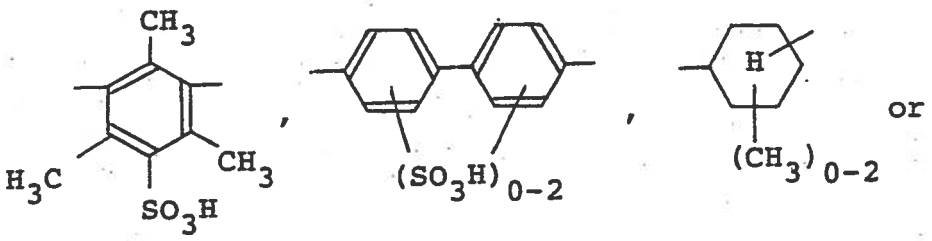


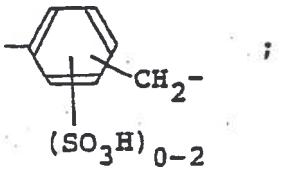
(G)

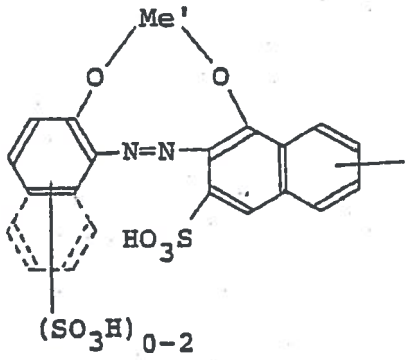


(H)

wherein W is C_{2-6} alkylene or a divalent group of the formula,

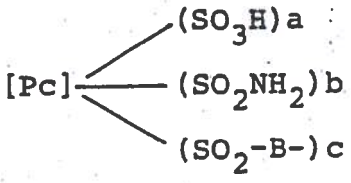






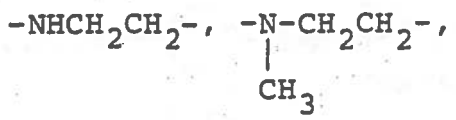
(I)

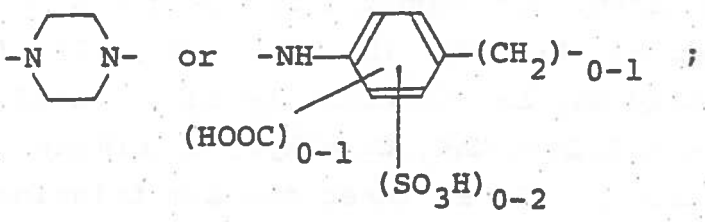
wherein Me' is Cu, Ni, Co1/2 or Cr1/2

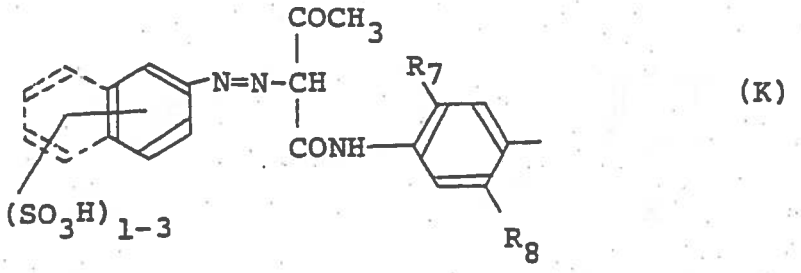


(J)

wherein Pc is copper phthalocyanine or nickel phthalocyanine moiety, a, b and c satisfy the following formulas, $1 \leq a \leq 2$, $0 \leq b \leq 2$, $1 \leq c \leq 2$ and $a + b + c \leq 4$, and B is a divalent group of the following formula,

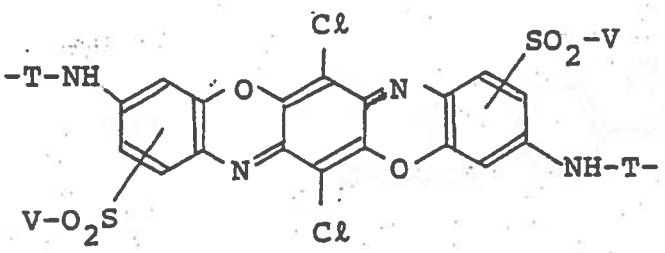






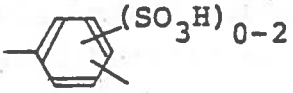
(K)

wherein R_7 and R_8 independently of one another are each sulfo or C_{1-4}alkoxy;

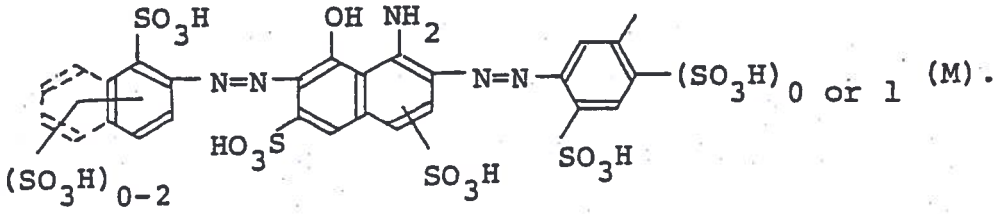


(L)

wherein V is hydroxy, vinyl or β-sulfatoethyl, and T is C_{2-6}alkylene or

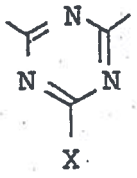


; and



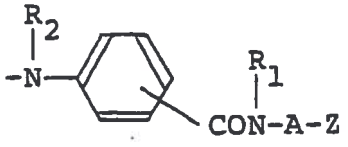
(M).

wherein the phenyl or naphthyl of the diazo component in the formulas (A), (B), (D), (E), (G), (I), (K) and (M) optionally may be additionally substituted by -$SO_2CH=CH_2$, $-SO_2CH_2CH_2-OSO_3H$, C_{1-4}alkyl, C_{1-4}alkoxy, halogeno, nitro or carboxy, (2) at least one sym-triazine moiety of the following general formula (I),



(I)

wherein X is chloro or fluoro, and (3) at least one aminobenzoylamine moiety of the following general formula (II),



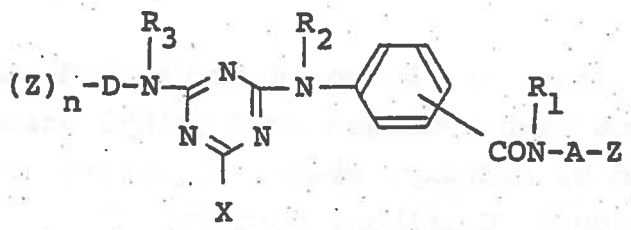
(II)

wherein R_1 and R_2 independently of one another are each hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl, A is unsubstituted phenylene or naphthylene unsubstituted or substituted by sulfo, and Z is -$SO_2CH=CH_2$ or $-SO_2CH_2CH_2Y$ in which Y is a group splittable by the action of an alkali

wherein the dye moiety bonds to the one hand of the sym-triazine moiety through imino, and the aminobenzoylamine moiety bonds to the other hand of the sym-triazine moiety.

c) **Auxiliary request III**

1. Compounds according to the following general formula,

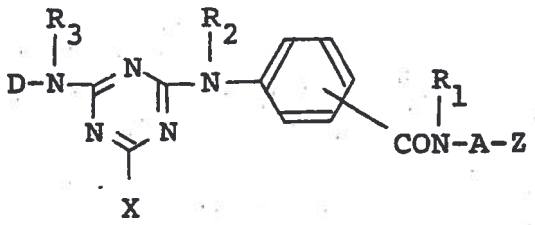


(1)

wherein X is chloro or fluoro, R_1 and R_2 independently of one another are each hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl, A is unsubstituted phenylene or naphthylene unsubstituted or substituted by sulfo, and Z is $-SO_2CH=CH_2$ or $-SO_2CH_2CH_2Y$ in which Y is a group splittable by the action of an alkali, R_3 is hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl and D is an anionic dye moiety wherein the dye moiety is the one represented by the following formulas (A) to (M) as set out in auxiliary request II, wherein the phenyl or naphthyl of the diazo component in the formulas (A), (B), (D), (E), (G), (I), (K) and (M) optionally may be additionally substituted by $-SO_2CH=CH_2$, $-SO_2CH_2CH_2-OSO_3H$, C_{1-4}alkyl, C_{1-4}alkoxy, halogeno, nitro or carboxy, and n is 0, 1 or 2.

d) **Auxiliary request IV**

1. Compounds according to the following general formula,



wherein X is chloro or fluoro, R_1 and R_2 independently of one another are each hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl, A is unsubstituted phenylene or naphthylene unsubstituted or substituted by sulfo, and Z is $-SO_2CH=CH_2$ or $-SO_2CH_2CH_2Y$ in which Y is a group splittable by the action of an alkali, R_3 is hydrogen or C_{1-4}alkyl unsubstituted or substituted by hydroxy, cyano, C_{1-4}alkoxy, halogeno, carboxy, carbamoyl, C_{1-4}alkoxy carbonyl, C_{1-4}alkylcarbonyloxy, sulfo or sulfamoyl and D is an anionic dye moiety wherein the dye moiety is the one represented by the following formulas (A) to (M), as set out in auxiliary request II, wherein the phenyl or naphthyl of the diazo component in the formulas (A), (B), (D), (E), (G), (I), (K) and (M) optionally may be additionally substituted by C_{1-4}alkyl, C_{1-4}alkoxy, halogeno, nitro or carboxy.

VIII. The Appellant's additional submissions at the oral proceedings can be summarised as follows:

- The disclosure of the compound in example No. 90 should be regarded as an accidental novelty-

destroying disclosure given that it was not in line with the teaching of document (1) as previously pointed out (see point VI, paragraph 2 above); once this compound was disclaimed, the claimed subject-matter was novel and the disclosure of compound No. 90 was no longer relevant for assessing inventive step.

- Concerning inventive step in respect of claim 1 of all the requests, the compound in example No. 10 of document (2) was the closest state of the art and the comparative tests submitted during the opposition proceedings (see point IV, paragraph 4 above) was evidence of the non-obviousness of the claimed subject-matter vis-à-vis this disclosure.

- Assuming, nevertheless, that document (1) in its general disclosure was to be regarded as the closest state of the art, the claimed invention then consisted in the shifting of the substituent $(X\text{-}SO_2)_n$- from the chromophore to the right part of the dyestuff. The teaching of document (1) as properly construed in view of DE-A-29 27 102 (see point VI, paragraph 2 above), and in view of the examples, was limited to the presence of the substituent $(X\text{-}SO_2)_n$- on the chromophore moiety and to the presence of a substituent SO_3H on the phenyl ring of the right part of the dyestuff.

- According to the established jurisprudence related to the "could/would approach", although the person skilled in the art could have made the claimed compounds, he would not have considered them to design valuable fiber reactive dyestuffs.

IX. The Appellant, having been duly summoned, informed the Board that he would not attend the oral proceedings.

They thus took place in the absence of the Appellant (Rule 71(2) EPC).

X. The Appellant requested in writing that the decision under appeal be set aside and that the patent in suit be revoked.

The Respondent requested that the appeal be dismissed or, alternatively, that the case be remitted to the first instance with the order to maintain the patent in one of the versions according to auxiliary requests I to IV and a description to be adapted.

XI. At the end of the oral proceedings the decision of the Board was given orally.

Reasons for the Decision

1. The appeal is admissible.

Main request

2. *Compliance with Article 123(2) EPC*

2.1 In order to overcome the objection of lack of novelty in view of the compound disclosed in example No. 90 of document (1), the Respondent in the course of the opposition proceedings submitted an amended claim 1, wherein said compound was formally excluded by way of a disclaimer.

2.2 The Opposition Division found that the subject-matter of the claims as thus amended was novel and, implicitly, that it also complied with the requirements of Article 123(2) EPC.

2.3 The Board observes that this amendment has no basis in the application as filed, and this was eventually conceded by the Appellant.

2.4 According to the established jurisprudence of the Boards of Appeal, it may be permissible to exclude a specific prior art from the claimed subject-matter by means of a disclaimer, even if the original application provides no basis for such an exclusion (see decisions T 170/87, OJ EPO 1989, 441, point 8.4.1 of the reasons; T 645/95 of 25 February 1999, point 2 of the reasons; T 863/96 of 4 February 1999, point 3.2 of the reasons; T 917/94 of 28 October 1999, point 4 of the reasons).

2.5 However, the same jurisprudence has established that a disclaimer may only be introduced into a claim if, by this amendment, the anticipating disclosure loses its relevance for any further examination of the claimed invention, in particular for the assessment of inventive step. Some of the above-cited decisions have used the expression "accidental disclosure" in this context (see e.g. decisions T 645/95, T 863/96; T 917/94 loc.cit and T 13/97 of 22 November 1999, point 2.3 of the reasons).

2.6 The Respondent, relying upon decision T 863/96, argued that the compound in example No. 90 of document (1) was indeed an accidental disclosure given that this isolated disclosure was not in line with the general teaching of this document, which related to fiber-reactive dyestuffs carrying one or two X-SO_2 substituents on the dye moiety, this finding being confirmed by the deletion of this compound from the description before a patent was granted (see point VI, paragraph 2 above).

2.7 The Board does not agree with this interpretation. Whether or not a disclosure is accidental does not

depend upon how it was made available to the public. That the compound in example No. 90 is a disclosure outside the general teaching of document (1) does not alter the fact that this disclosure forms part of the state of the art.

2.8 An accidental disclosure is a chance overlap between claimed subject-matter and a disclosure which does not aim at the same objective as the claimed invention. According to the description of document (1) (pages 66 and 67), the compound in example No. 90 is a valuable dyestuff (blue) with good fastness, shades of which are obtainable on cotton fibers. Furthermore, the Respondent has never contested that the disclosure concerning this compound was enabling and that its description was accurate. Since the disclosure of this compound aims at the same objective as the claimed subject-matter (see page 2, lines 3/4; page 9, line 25 and page 10, line 9 ff. of the patent in suit), it cannot be considered an accidental disclosure.

2.9 For the above reasons, the Board concludes that the compound in example No. 90 is not an accidental disclosure on which a disclaimer can be properly based and that the present request does not comply with the requirements of Article 123(2) EPC.

Auxiliary request I

3. *Compliance with Article 123(2) EPC*

3.1 Claim 1 of auxiliary request I contains the same technical feature as claim 1 of the main request, i.e. a disclaimer related to the compound in example No. 90 of document (1). Auxiliary request I thus suffers from the same deficiency as the latter and is therefore not admissible under Article 123(2) EPC.

Auxiliary request II

4. *Compliance with Article 123(2) EPC*

4.1 Claim 1 of auxiliary request II is the result of combining the subject-matter of claims 1 and 3 as granted with the restriction that dye moiety (1) corresponding to formula (I) contained a chromophore moiety wherein the phenyl ring adjacent to the sym-triazine moiety is no longer substituted by a sulfo group, the disclaimer of the compound as defined in example No. 90 of document (1) no longer being present (see point VII b) above).

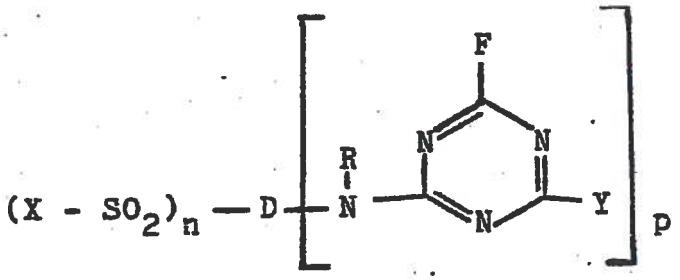
4.2 The Board sees no objection under Article 123(2) EPC to the claims of the present request. In particular, the restriction of the dye moiety of formula (I) does not amount to a selection of a specific sub-class of compounds not disclosed in the application as filed but on the contrary consists of a limitation of the possibilities already disclosed in the application as filed (see page 5, line 19 to page 10, line 2).

5. *Compliance with Article 123(3) EPC*

The claims of auxiliary request II also meet the requirements of Article 123(3) EPC in that the claimed subject-matter does not extend the protection conferred on the patent, in view of the restriction introduced in the definition of the dye moiety of formula (I).

6. *Novelty - Article 54(2) EPC*

6.1. Document (1) discloses soluble dyes with fiber-reactive properties of the formula:

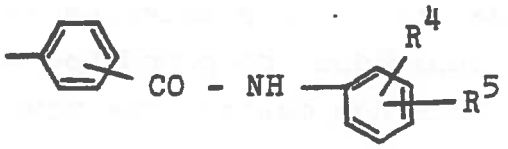


(1)

wherein

D is an organic dye moiety;
X is a vinyl-, β-thiosulfatoethyl-, β-sulfatoethyl- or β-chloroethyl group;
R is a hydrogen atom or a C_{1-4}alkyl group;
n is 1 or 2;
p is 1 or 2;
Y is a substituent $-O-R_1$; $-S-R_1$ or $-NR_2R_3$ in which:
R_1 is an optionally substituted C_{1-4}alkyl group or an optionally substituted aromatic carbocyclic or aromatic heterocyclic group,
R_2 is a hydrogen atom or an optionally substituted lower aliphatic group or a cycloaliphatic group and
R_3 is a hydrogen atom or an optionally substituted lower aliphatic or an optionally substituted aromatic carbocyclic group or a lower alkoxy group or the cyano group or the group of formula $-CS-NH_2$ or an optionally substituted amino group or
R_2 and R_3, together with the nitrogen atom, can form a ring containing a lower alkyl and, optionally, a heteroatom (see page 1, line 12 ff.).

6.2 The description further indicates that the optional amino groups which may form group R_3 include a group of the formula:



wherein

R_4 is hydrogen, chloro, methyl, methoxy or nitro and

R_5 is a sulfo group or **a β-sulfatoethylsulfonyl-** (emphasis added by the Board) or β-thiosulfatoethylsulfonyl group (see document (1), page 3, lines 9 to 25).

6.3 The claimed compounds fall within the scope of the general definition of formula (1) indicated in document (1) (see point 6.1 above) but they result from a multiple selection within the above-mentioned alternative meanings of the Y substituent, first requiring the choice of the substituent $-NR_2R_3$ among three substituents, then the choice of the benzanilide group among numerous other substituents and then the choice of a hydrogen atom for the substituent R_4 and β-sulfatoethylsulfonyl- for the substituent R_5. In the absence of any pointer to this particular combination of substituents, such multiple selection of features does not, for the person skilled in the art, emerge clearly and unambiguously from document (1).

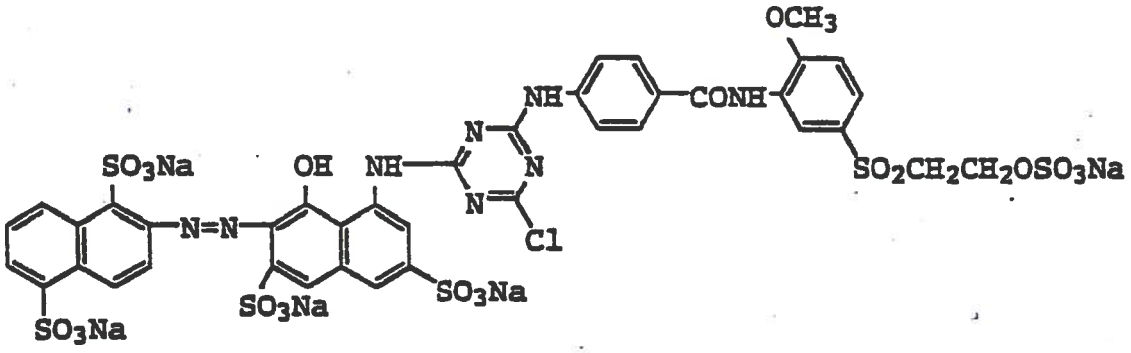
6.4 The exemplified compounds falling within the scope of formula (1) of document (1) do not alter that conclusion. The exemplified compounds most closely related to the claimed compounds are those where the substituent R_3 is a phenyl substituted by a sulfo group which is not the same as benzanilide itself substituted

by the substituent Z according to the claimed invention.

6.5 In view of the list of dye moieties (A) to (M) now claimed, the individual compound No. 90 disclosed in document (1) does not destroy the novelty of the claimed subject-matter.

6.6 Documents (2) and (3) are Japanese documents for which no translation in one of the official languages of the EPO was provided. In the absence of a translation, the Board can rely on those documents only to the extent that the parties made plausible and uncontested submissions in respect of them.

6.7 It turns out that document (2) in its example No. 10 and document (3) in its example No. 8 disclose a dyestuff of the formula:



6.8 This compound does not destroy the novelty of the claimed subject-matter due to the presence of a methoxy substituent on the benzanilide moiety, while the corresponding benzanilide moiety (see group A of formula (II) in point VII b) above) in the claimed subject matter of claim 1 does not have such a methoxy group.

6.9 For these reasons none of documents (1), (2) or (3) anticipates the claimed invention as defined in the claims of the second auxiliary request.

7. *Inventive step - Article 56 EPC*

7.1 In accordance with the "problem and solution approach" consistently applied by the Boards of Appeal to assess inventive step on an objective basis, it is necessary to identify the closest state of the art as the starting point, to determine in the light thereof the technical problem which the invention addresses, to verify that the technical problem is solved by all the embodiments encompassed within the claimed solution and to examine whether the claimed solution is obvious or not in view of the state of the art.

7.2 As set out in point 6.1 and 6.2 above, document (1) aims at the same objective as the claimed invention and comprises a disclosure represented by the general definition of compounds of formula (1) and, therein, a specific technical teaching related to the specifically disclosed compounds. In the Board's view, the closest state of the art is to be found among this specific technical teaching which was in fact the sole prior art available to the public, namely the compounds of formula (1) wherein inter alia R_3 is a phenyl substituted by a sulfo group such as the compounds in examples 1 to 4.

7.3 Those specifically disclosed compounds of document (1) are closer to the claimed invention than the compound in example No. 10 of document (2), which falls outside the general definition of formula (1). In principle, in the case of a new selection of a group of compounds within a general disclosure aiming at the same objective as the claimed compounds, the closest state

of the art is found among the compounds specifically disclosed in the said general disclosure.

7.4 Nor can the individual compound in example No. 90 be considered the closest state of the art, in the present circumstances, as it does not fall within the scope of the general definition of formula (1).

7.5 The problem to be solved should therefore be determined in respect of fiber-reactive dyestuffs of formula (1) of document (1) wherein the substituent R_3 is a phenyl substituted by a sulfo group such as compounds of examples 1 to 4.

7.6 In the light of this closest state of the art, and in the absence of any evidence showing an improvement in respect thereof, the technical problem can only be seen in the provision of fiber-reactive dyestuffs other than those known from document (1) wherein the substituent R_3 is a phenyl substituted by a sulfo group such as the compounds in examples 1 to 4.

7.7 This problem is essentially solved by replacing, in the structure disclosed in document (1), the groups R_3 representing a phenyl substituted by a sulfo group by other substituents of the formula:

R_1, A and Z being as defined in point VII b) above.

7.8 In view of the dyeing examples Nos. 1 and 3 (see pages 18 and 19) and the printing example No. 2 (see page 19) related to tests carried out with the compounds in example No. 1 (see page 10) and examples Nos. 2 to 31

(see Tables, pages 11 to 18), the Board is satisfied that the claimed subject-matter represents a solution to the technical problem defined above.

7.9 It remains to be decided whether or not the proposed solution to the problem underlying the patent in suit in the version now under consideration is obvious in view of the cited prior art.

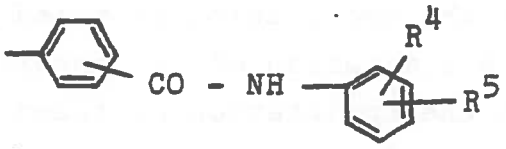
7.10 In the Board's view, the question is whether the person skilled in the art, faced with the problem of designing fiber-reactive dyestuffs other than those specifically disclosed in document (1), would have considered compounds corresponding to those claimed for dyeing properties on fibers.

7.11 The Respondent argued that the claimed subject-matter represented a non-obvious multiple selection among a great number of possibilities encompassed by the disclosure of document (1) as the person skilled in the art, faced with the problem of designing dyestuffs other than those where the substituent R_3 is a phenyl substituted by a sulfo group, would not have had any relevant information allowing him to select the claimed compounds. Furthermore, document (1) taught fiber-reactive dyestuffs, the substituent X-SO_2 of which is attached to the dye moiety while, in the claimed invention, the said X-SO_2 substituent is attached to the opposite part of the molecule. The fact that "optionally" the dye moiety of the claimed compounds could also comprise an X-SO_2 substituent is not to be taken into consideration as this optional feature was not an essential one. Although the person skilled in the art could have made this selection, he would not have done so. This is sufficient for acknowledging inventive step in accordance with the proper standard.

7.12 The Board concurs with the Respondent that the claimed compounds derive from a multiple selection, not specifically mentioned, among a great number of compounds generally disclosed in document (1). This is the reason why novelty was acknowledged (see point 6.3 above). However, according to well-established jurisprudence of the Boards of Appeal, a special group of substances merely mentioned incidentally amongst numerous other groups of substances, and not emphasised by an example, nevertheless permits a surmise of comparable suitability and effectiveness for the purpose in hand if these groups of substances are interchanged (see decisions T 01/80, OJ EPO 1981, 206, point 12 of the reasons; T 181/82, OJ EPO 1984, 401, point 13 of the reasons).

7.13 Furthermore, the fact that the substituent $X-SO_2$ on the dye moiety is optional does not change the situation, as the corresponding claimed compounds are part of the claimed subject-matter in the same manner as those which do not contain such a substituent on the dye moiety. Since all the embodiments of a claim must meet the patentability requirements set out in Articles 52 to 57 EPC, it follows that the claimed compounds the dye moiety of which is substituted by a $X-SO_2$ substituent must satisfy the inventive step requirement.

7.14 In that context, in the Board's judgment, contrary to the opinion of the Respondent, the person skilled in the art, starting from dyestuffs of formula (1) of document (1) wherein the substituent R_3 is a phenyl substituted by a sulfo group such as compounds of examples 1 to 4, would have considered the claimed dyeing compounds as possible alternatives, given that the general disclosure of document (1) teaches that the groups with phenylamino substituted by sulfo are interchangeable with groups of the formula:



for obtaining new fiber-reactive dyestuffs. The Board notes furthermore that the so-called "could/would approach" applies when some improvement or advantage is set forth, as correctly pointed out by the Respondent on page 6, second paragraph, of his letter of 8 September 1995 (see also decisions T 2/83, OJ EPO 1984, "Headnote"; T 7/86, OJ EPO 1988, 381, in particular point 6 of the reasons). The Respondent not having shown that the claimed subject-matter provided an unexpected result, it can only considered that it is an arbitrary selection, as opposed to a purposive selection, and thus does not fulfill the requirements of Article 56 EPC.

7.15 For this reason, auxiliary request II is not allowed.

Auxiliary request III

8. *Compliance with Article 123(2) EPC*

8.1 Claim 1 of auxiliary request III is the result of combining the subject-matter of claims 1, 3 and 6 as granted, with the further restriction that dye moiety (1) corresponding to formula (I) contained a chromophore moiety wherein the phenyl ring adjacent to the sym-triazine moiety was no longer substituted by a sulfo group, the disclaimer of the compound as defined in example No. 90 of document (1) no longer being present (see point VII c) above).

8.2 The Board sees no objection under Article 123(2) EPC to the present request. In particular, the deletion of a sulfo group in die moiety (I) does not amount to a selection of a specific sub-class of compounds not

disclosed in the application as filed but on the contrary is a limitation of the possibilities already disclosed in the application as filed (see page 5, line 19 to page 10, line 2).

9. *Compliance with Article 123(3) EPC*

9.1 The claims of auxiliary request III also meet the requirements of Article 123(3) EPC in that the claimed subject-matter does not extend the protection conferred by the patent as granted in view of the restriction introduced in the definition of dye moiety (1).

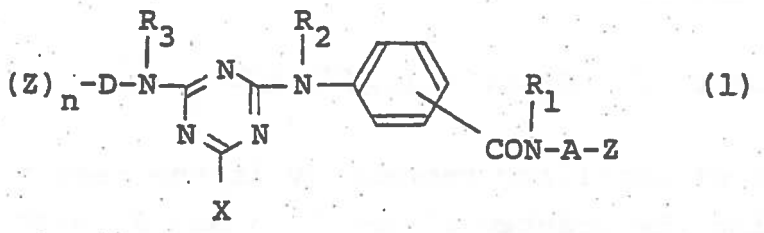
10. *Novelty - Article 54(2) EPC*

10.1 The disclosure of document (1) does not destroy the novelty of the subject-matter of claim 1 of auxiliary request III for essentially the same reasons as those set out for auxiliary request II (see points 6.3 and 6.4 above).

10.2 Likewise the claimed subject-matter is novel in view of the compound in example No. 90 of document (1) and of the compound in example No. 10 of document (2) (see points 6.5 to 6.8 above).

11. *Inventive step - Article 56 EPC*

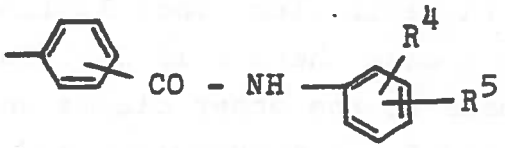
11.1 Claim 1 of auxiliary request III contains essentially the same technical feature as claim 1 of auxiliary request II, i.e. a group of substances encompassed but not disclosed by the general disclosure of document (1) and aiming at the same objective as document (1). In particular, in the claimed formula:



(1)

n is 0, 1 or 2 (emphasis added by the Board).

11.2 In the Board's judgment, it would have been obvious for the person skilled in the art starting from dyestuffs of formula (1) of document (1), wherein the substituent R_3 is a phenyl substituted by a sulfo group such as compounds of examples 1 to 4, to arrive at fiber-reactive dyeing compounds such as claimed, given that the general disclosure of document (1) teaches that the groups with phenylamino substituted by sulfo are interchangeable with groups of the formula:



for the purpose in hand (see point 7.14 above). The Respondent has not shown that this choice produced any unexpected result. Therefore it can again only be concluded that it is an arbitrary selection, as opposed to a purposive selection, and thus this choice does not fulfill the requirements of Article 56 EPC.

11.3 For these reasons, this request suffers from the same deficiency as auxiliary request II and is not allowable under Article 56 EPC, either.

Auxiliary request IV

12. *Compliance with Article 123(2) EPC*

12.1 Claim 1 of auxiliary request IV is the result of combining the granted claims 1, 3 and 6, with the further restriction that the anionic dye moiety corresponding to formula (I) contained a chromophore moiety wherein the phenyl ring adjacent to the sym-triazine moiety was no longer substituted by a sulfo group; the substituent Z was deleted and the substituents $-SO_2CH=CH_2$ and $-SO_2CH_2CH_2-OSO_3H$, which in the main request were optionally attached to the dye moiety, were deleted (see point VII d) above).

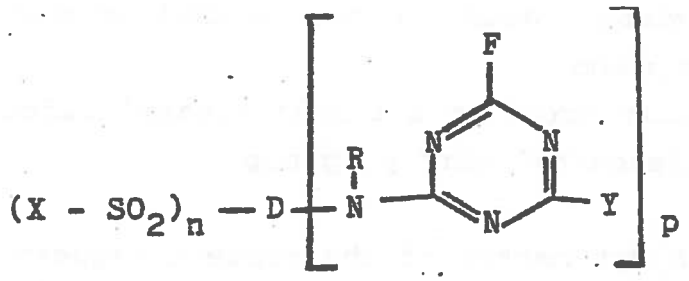
12.2 These amendments do not amount to an inadmissible singling-out of a specific sub-class of compounds not disclosed in the application as filed but, on the contrary, they amount to a limitation of the possibilities already disclosed in the application as filed (see, in particular, page 3, lines 21-22 "much preferred is a case where n is 0"). Furthermore, the amendments made to the other claims and, in particular, to claims 4 and 6 are appropriate and necessary to bring those claims into line with the wording of the present claim 1.

13. *Compliance with Article 123(3) EPC*

13.1 The claims of auxiliary request IV also meet the requirements of Article 123(3) EPC in that the claimed subject-matter does not extend the protection conferred by the patent as granted in view of the restrictions introduced in the definition of the anionic dye moiety.

14. *Novelty - Article 54(2)*

14.1 As already set out in point 6.1 above, document (1) discloses soluble dyes with fiber-reactive properties of the formula:

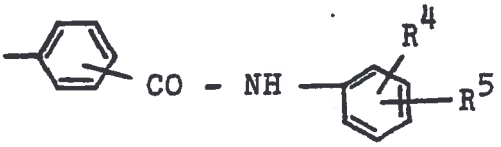


(1)

wherein

D is an organic dye moiety;
X is a vinyl-, β-thiosulfatoethyl-, β-sulfatoethyl- or β-chloroethyl group;
R is a hydrogen atom or a C_{1-4}alkyl group;
n is 1 or 2;
p is 1 or 2;
Y is a substituent $-O-R_1$; $-S-R_1$; $-NR_2R_3$ in which:
R_1 is an optionally substituted C_{1-4}alkyl group or an optionally substituted aromatic carbocyclic or aromatic heterocyclic group,
R_2 is a hydrogen atom or an optionally substituted lower alkyl group or a cycloaliphatic group and
R_3 is a hydrogen atom or an optionally substituted lower alkyl or an optionally substituted aromatic carbocyclic group or a lower alcoxy group or the cyano group or the group of formula $-CS-NH_2$ or an optionally substituted amino group, or
R_2 and R_3, together with the nitrogen atom, can form a ring containing a lower alkyl and, optionally, a heteroatom.

14.2 The description further indicates that the optional amino groups which may form group R_3 include a group of the formula:



wherein

R_4 is a hydrogen atom, chloro, methyl or methoxy or nitro group and

R_5 is a sulfo group or a β-sulfatoethylsulfonyl- or β-thiosulfatoethylsulfonyl group.

14.3 The claimed subject-matter of the present request is delimited from the general disclosure of document (1) in that claim 1 is directed to compounds where the anionic dye moiety is **not** substituted by a group Z. It is further delimited from the individual compound of example 90 (due to the specific dye moieties D) and from the individual compound of example 10 of document (2) because A is unsubstituted phenylene.

14.4 Therefore, neither the disclosure of document (1) nor that of example No. 10 of document (2), which corresponds to example No. 8 of document (3), anticipates the claimed invention.

15. *Inventive step - Article 56 EPC*

15.1 As regards the assessment of inventive step, the general disclosure of document (1) is no longer relevant as it requires as an essential feature the presence of an X-SO_2 group attached to the dye moiety. On the contrary, the compound of example No. 90 of document (1) aims at the same objective as the claimed invention and has all the relevant technical features in common, in particular the substituent attached to the sym-triazine moiety opposite to the dye moiety. This feature is not present in the compound in example

No. 10 of document (2) and therefore the latter does not qualify as the closest prior art.

15.2 In the light of this closest state of the art, and in the absence of any evidence showing an improvement over said closest state of the art, the technical problem is to be seen in the provision of fiber-reactive dyestuffs other than the compound known from example No. 90 of document (1).

15.3 This problem is essentially solved by replacing the anionic dye moiety of the known compound by the anionic dye moieties D as mentioned in claim 1.

15.4 In view of the dyeing examples 1 and 3 (see pages 18 and 19) and the printing example 2 (see page 19) related to tests carried out with the compounds of example 1 (see page 10) and examples 2 to 31 (see Tables, pages 11 to 18), the Board is satisfied that the claimed subject-matter represents a solution to the technical problem defined under point 15.2.

15.5 It remains to be decided whether or not the proposed solution to the problem underlying the patent in suit is obvious in the light of the cited prior art.

15.6 The Board finds nothing relevant in the Appellant's submissions or in the cited documents to support the view that the fiber-reactive compounds according to the claims of the present request represent a solution to the stated problem which does not involve inventive step. It is not convinced by Appellant's argument that, in view of the close structural relationship between the compound in example No. 90 of document (1) and the claimed subject-matter, no inventive step could be acknowledged *prima facie*. This argumentation is inadequate as it does not explain how the person skilled in the art would have been directed, starting

from this known compound, towards the claimed compounds, as none of the cited documents contains any relevant information in this respect.

15.7 The Respondent submitted convincing arguments in support of the view that the person skilled in the art would have noted that the compound in example No. 90 was not in line with the general teaching of document (1). The general teaching has as its essential feature an $X-SO_2$ substituent attached to the dye moiety. As this feature is lacking in example no. 90 the skilled person can only treat it as an isolated example not leading to further possibilities. Nor could he have relied upon the compound in example No. 10 of document (2), as this latter teaches that a substituent methoxy must be present on the benzanilide moiety. Thus there is no teaching which points in the direction of the claimed compounds.

15.8 The Board's conclusion is that documents (1), (2) and (3) do not lead to the subject-matter of present claim 1.

15.9 It follows from the above that the subject-matter of claim 1 is not rendered obvious by documents (1), (2) and (3). The same applies to dependent claims 2-5 relating to specific embodiments of said independent claim. Independent claim 6, relating to a process for producing a compound according to any of claims 1 to 5, is based on the same inventive concept and derives its patentability on the same basis as does claim 1. The same applies to claims 7 and 8, respectively relating to a process for dyeing or printing fiber materials, which comprises using a compound according to any one of claims 1 to 5 and to fiber materials dyed or printed by the process of claim 7. This also applies to claims 1 to 6 for the contracting state ES.

16. *Discretion under Article 111(1) EPC*

Although the Board has come to the conclusion that the claimed subject-matter complies with the requirements of Article 52(1) EPC, the description has still to be brought into line with the claims of present auxiliary request IV. Therefore, the Board exercises its discretion under Art. 111(1) EPC to remit the case to the first instance in order for the description to be adapted to the allowable claims.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent in the version according to auxiliary request IV (claims 1-8 for the designated contracting states except ES, separate set of claims 1-6 for ES) and a description to be adapted.

The Registrar

N. Maslin

The Chairman

A. Nuss