



Case Number : T 390/88 - 3.3.2

DECISION of 29 June 1990  
correcting error in the decision  
of the Technical Board of Appeal 3.3.2  
of 20 February 1990

Appellant : Agfa-Gevaert AG  
(Opponent) Patentabteilung  
Postfach  
D-5090 Leverkusen 1

Representative :

Respondent : Konishiroku Photo Industry Co. Ltd.  
(Proprietor of the patent) 26-2 Nishisshinjuku 1-chome  
Shinjuku-ju  
Tokyo (JP)

Representative : Ellis-Jones, Patrick George Armine  
J.A. KEMP & CO.  
14 South Square  
Gray's Inn  
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Decision under appeal : Decision of Opposition Division of the European  
Patent Office dated 13 July 1988 rejecting  
the opposition filed against European patent  
No. 0 087 931 pursuant to Article 102(2) EPC.

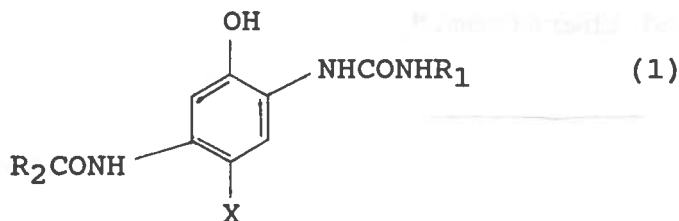
Composition of the Board :

Chairman : P. Lançon  
Members : R. Lunzer  
J. Stephens-Ofner

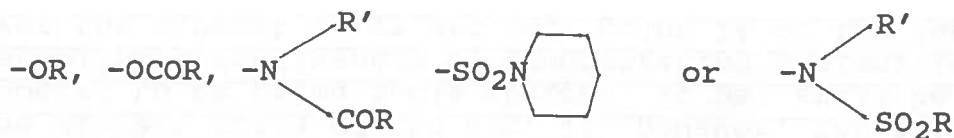
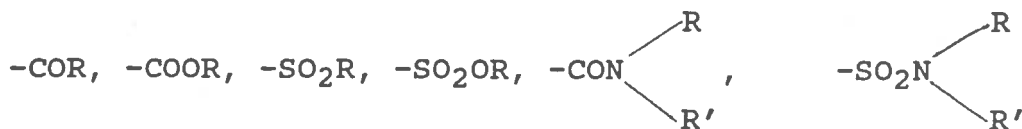
In application of Rule 89 EPC the Decision given on 20 February 1990 is hereby ordered to be corrected as follows:

Pages 2-3, substitute Claim 1 by:

"1. A light-sensitive silver halide color photographic material having a blue sensitive silver halide emulsion layer, a green sensitive silver halide emulsion layer and a red sensitive silver halide emulsion layer on a support, the red sensitive silver halide emulsion layer containing a cyan coupler, the content of the silver halide contained in the blue-sensitive, green-sensitive and red-sensitive silver halide emulsion layers taken together being 7.5 g/m<sup>2</sup> or more calculated as silver and the content of the silver halide contained in said red sensitive silver halide emulsion being 3.5 g/m<sup>2</sup> or more calculated as silver characterised in that the cyan coupler in the red sensitive silver halide emulsion layer is of the formula (1):



wherein, X represents a hydrogen atom or a group or atom eliminable on coupling with an oxidization product of an aromatic primary amine color developing agent; R<sub>1</sub> represents a substituted or unsubstituted naphthyl or heterocyclic group provided that a carbon atom thereof is bonded to the adjacent nitrogen atom of the ureido group, or a phenyl group having at least one substituent which is a trifluoromethyl, nitro, cyano,



(where R represents an aliphatic group or an aromatic group, and R' a hydrogen atom, an aliphatic group or an aromatic group) with the proviso that, when said substituent is a cyano in the p-position relative to the ureido group, the four remaining positions are not all substituted by hydrogen atoms; and R<sub>2</sub> represents an aliphatic group, or an aromatic group necessary for imparting diffusion resistance to the said cyan coupler and/or a cyan dye formed therefrom."

The Registrar:

The Chairman:

M. Beer

P. Lançon

Veröffentlichung im Amtsblatt	Ja/Nein
Publication in the Official Journal	Yes/No
Publication au Journal Officiel	Oui/Non

Aktenzeichen / Case Number / N<sup>o</sup> du recours : T 390/88 - 3.3.2

Anmeldenummer / Filing No / N<sup>o</sup> de la demande : 83 300 977.2

Veröffentlichungs-Nr. / Publication No / N<sup>o</sup> de la publication : 87 931

Bezeichnung der Erfindung: Light sensitive silver halide colour photographic  
Title of invention: material  
Titre de l'invention :

Klassifikation / Classification / Classement : G03C 7/34

### ENTSCHEIDUNG / DECISION

vom / of / du 20 February 1990

Anmelder / Applicant / Demandeur :

Patentinhaber / Proprietor of the patent /  
Titulaire du brevet :

Konishiroku Photo Industry Co. Ltd.

Einsprechender / Opponent / Opposant :

Agfa-Gevaert A.G.

Stichwort / Headword / Référence : Photographic Film/KONISHIROKU

EPÜ / EPC / CBE Article 56

Schlagwort / Keyword / Mot clé :

"Inventive step (affirmed) - Prior use -  
non-obvious alternatives"

### Leitsatz / Headnote / Sommaire

Where the invention is not prima facie obvious, it does not matter whether an improvement has been shown or not, nor whether such comparative data as is included in the specification is directed to the closest state of the art. If, however, the alleged invention appears to be prima facie obvious, it may still be possible to establish inventiveness by demonstrating a significant improvement over the closest prior art (cf. point 14 of the Reasons).



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D E C I S I O N  
of the Technical Board of Appeal 3.3.2  
of 20 February 1990

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(Opponent)

Agfa-Gevaert AG  
-Patentabteilung-  
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Respondent :  
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Representative :

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Decision under appeal :

Decision of the Opposition Division of the European  
Patent Office dated 13 July 1988 rejecting  
the opposition filed against European patent  
No. 87 931 pursuant to Article 102(2) EPC.

Composition of the Board :

Chairman : P. Lançon

Members : R. Lunzer

J. Stephens-Ofner

## Summary of Facts and Submissions

- I. European patent No. 87 931 filed on 24 February 1983 was granted on the basis of patent application No. 83 300 977.2, which had a priority date of 25 February 1982.
- II. On 16 March 1987 an opposition was lodged on the grounds of lack of novelty, and lack of inventive step, in which the following documents were cited:

- (1) EP-A-0 067 689
- (2) DE-A-2 744 489
- (3) EP-A-0 028 099
- (4) "Photo-contact" 3/82 pages 10-16

Document (4) was a magazine article reporting a press conference which had taken place in Stuttgart on 3 February 1982, and it described the then new "Kodacolor HR Disc Film". This disc film was released at that time to members of the public. In the grounds of opposition the Appellant stated, without contradiction on the part of the Respondent (Patentee), that this film had been shown by analysis to contain  $9.40 \text{ g/m}^2$  of total silver, and  $5.08 \text{ g/m}^2$  silver in the blue/green layers, thus falling within the levels of silver content stipulated in the patent claims.

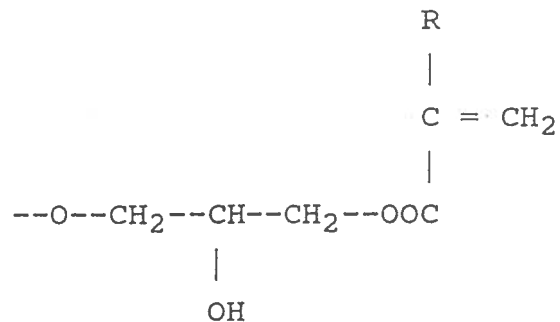
- III. By its decision dated 13 July 1988 the Opposition Division dismissed the opposition, holding that the closest prior art was the cyan coupler which was to be found in the Kodacolor HR Disk Film, which had been handed out to members of the public at the Stuttgart press conference. The cyan coupler of this film had a (p-cyanophenyl) ureido group at the 2 position of the main phenyl ring, whereas Claim 1 of the patent in suit required further

substitution at that position. Since the cyan coupler in the Kodak film was identical to that exemplified as Coupler 7 on page 6 of document (3), the skilled man would have considered this document in any search for alternative couplers. But document (3) did not indicate how further substitution of the p-cyanophenyl group would affect the properties of the dyes. In fact, on the basis of materials I and H of Example 5 in document (3), in which the replacement of the p-cyanophenyl group by an m-chlorophenyl group resulted in inferior properties, the skilled man may well have been discouraged from attempting further substitution at the 2 position.

IV. Further, the Opposition Division dealt with the argument of the Appellant to the effect that the comparative data contained in the patent was not relevant in that it did not make any comparison with the behavior of the Kodacolor HR Disc Film, nor show any surprising effect in comparison therewith. It held that surprising effect is not a condition of patentability under the EPC, but only an indication of the possible presence of an inventive step for subject matter which is prima facie obvious in the light of the closest state of the art. Accordingly, the patent was upheld without amendment, the single independent Claim 1 being in the following form:

1. A photosensitive polyamide resin composition prepared from at least the following components:
  - (A) 100 parts by weight of an alcohol-soluble polyamide,
  - (B) 0.1 to 50 parts by weight of a non-polymeric compound having both vinyl and epoxy groups in the same and one molecule, and

- (C) 10 to 200 parts by weight of a polyfunctional vinyl monomer having a molecular weight of lower than 2,000 and at least two linkages represented by the following formula:



wherein R stands for H or CH<sub>3</sub>.

- V. On 9 August 1988 a Notice of Appeal was filed, and at the same time the appeal fee was paid, and the grounds of appeal were filed.

Oral proceedings were held on 20 February 1990.

- VII. In its grounds of appeal, the Appellant sought the reversal of the decision of the Opposition Division on the ground of lack of inventive step, particularly having regard to the prior use of the Kodacolor film, which differed from the invention as claimed only in that there was a different substitution at the 2 position of the main phenyl group. It was contended that as this was a Kodak film, the skilled worker might have been expected to have regard to Kodak's patent document (3), which disclosed the cyan coupler used in the film, and contained broad claims to possible substitution at the 4 and 5 positions of the phenyl ring, while having a 4-cyanophenyl group in the 2 position. Thus, the skilled worker seeking alternatives would have seen at once that his only option in a search



for resembling couplers lying outside the scope of the Kodak patent (3) was by alternative substitution at the 2 position.

- VIII. On behalf of the Respondent it was contended that document (3) taught that the only couplers which gave useful results were those having a 4-cyanophenyl group at the 2 position, so that the skilled worker might well have been discouraged from seeking alternative substitution at this position, while as the Kodacolor HR Disc Film had only come onto the market some three weeks before the priority date of the patent, there was not sufficient time for potentially interested parties to have determined its composition by analysis.

Document (1) was an earlier patent of the patentee, having been applied for in Japan on 11 June 1981, and having been published as a European patent on 22 December 1982, i.e. after the priority date of the patent in issue. It therefore ranked as prior art only to the extent permitted under Articles 54(3) and 56 EPC, i.e. its contents could be taken into account for the purposes of assessing novelty, but not in deciding whether there was any inventive step.

Although document (1) published cyan couplers which were of the kind covered by the claims in issue, it lacked any disclosure of the high levels of silver halide which were a feature of the claims in issue.

- IX. The Appellant asked that the patent should be revoked, while the Respondent sought the maintenance of the patent, either in unamended form, or subject to certain limitations contained in an auxiliary request.

### Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is, therefore, admissible.
2. With regard to document (1), although the issue of novelty was not disputed on appeal, the Board observes that if there had been clear evidence to the effect that the high levels of silver halide specified in the claims of the patent in issue were such as would be commonly expected by the skilled worker in this art, it might have been necessary to consider whether this document could be destructive of novelty on its own. However, in the absence of such evidence, and the entitlement of the patent in issue to its priority date not having been disputed, this document does not destroy novelty, and the Board is required by Article 54(3) EPC to deal with inventiveness on the premise that document (1) must be excluded altogether when dealing with that issue. None of the other documents discloses a combination of all the features of Claim 1. Accordingly this claim, and the claims dependent upon it, are novel.
3. Turning to the issue of inventive step, the Board agrees with the finding of the opposition division, that the closest prior art is the Kodacolor HR Disc Film, which was made available to members of the public at the press conference in Stuttgart on 3 February 1982. This film, in common with the films described in document (3), had a cyan coupler of the kind in which there was a 4-cyano-phenyl-ureido group at the 2 position on the main phenyl ring. In contrast, in the claims in issue, such a 4-cyano-phenyl group at this position is expressly excluded.
4. Although this film was made available to the public only three weeks before the priority date of the patent, the Board does not accept in the circumstances of the present

case that this relatively short time interval was insufficient to enable interested parties to become fully aware of its composition. Thus the Board takes as its starting point that this film was known to the skilled man, as was its silver content falling within the claims in issue, and also its cyan coupler, differing in only one respect from those of the claims.

5. Taking into account the unchallenged evidence filed by the Appellant (Versuchsbericht filed 16 March 1987) which showed that the Kodacolor film had both the high levels of silver halide coating together with good bleachability, the relevant problem which faced the Respondent was to find alternative cyan couplers to those disclosed in document (3), having a balance of properties which were no worse than the couplers disclosed by this particular prior art.
6. Although the patent in issue discloses at Table 1 certain experiments which purport to show superior silver removal from the emulsions made in accordance with the invention when compared with other emulsions used as a control, this comparison is not particularly pertinent to the issue of inventiveness over document (3) because the control emulsions are not those of document (3), which describes resembling cyan couplers, and specifically the cyan coupler used in the Kodacolor film. Consequently, the Board is unable to accept that any improvement over prior art compounds has been demonstrated. What does emerge from the tests reported in the patent is that emulsions according to the invention have good bleachability, which does not appear to be balanced by any loss in its photographic qualities (cf. Table 2). Thus it would appear that the Respondent has succeeded in producing alternative useful couplers which are capable of working effectively in association with relatively thick silver halide layers.

7. The issue of inventive step has to be decided by considering whether it was obvious to reach the claimed couplers using as a starting point:
- (a) the information about the Kodacolor film contained in document (4), which may be taken in association with what was known, or could have been known, about Kodacolor film, or
  - (b) the Kodak patent (document (3)), or
  - (c) a combination of (a) with (b).
8. Regarding (a) above, document (4) praised the qualities of the new Kodacolor HR Disc Film, and the film, which corresponded to this description, had been demonstrated to have combined both high silver levels in the emulsion and good bleachability. It thus appeared to be a thoroughly satisfactory film, so that, rather than prompting the skilled man to find alternatives, he might hesitate to depart from the solution it afforded. Therefore, the Board does not see in the availability of this prior used film any pointer towards the adoption of alternative cyan couplers.
9. Turning next to (b), document (3), it was argued by the Appellant that it suggests to the skilled worker that he could usefully make other substitutions at position 2 of the main phenyl ring. This was argued to be so because the possible substitutions at positions 4 and 5, were so broadly defined that the skilled worker would be left with the sole option of substitution at the 2 position when looking for alternatives couplers falling outside the claims of document (3). Although this kind of argument might be persuasive in some circumstances, it is not accepted in the present case. The disclosure of document (3) must be read as a whole, and it has been carefully

summarised at page 5 of the decision under appeal. What it teaches is that valuable couplers can be found by substitution at positions 4 and 5, but that for useful cyan couplers to result, there is no alternative to having a 4-cyanophenyl-ureido group at the 2 position. Even accepting that there is sometimes an incentive to the skilled man to seek alternatives which fall outside the ambit of the claims of a given patent, nevertheless due regard must be paid to what the document actually teaches. In this case, the emphasis on the need for a 4-cyanophenyl-ureido group at the 2 position is sufficient to make it non-obvious to ignore that teaching.

10. The combination of the Kodak patent (3) with the prior used Kodacolor film presents the skilled worker with a choice of cyan couplers, as well as with a film emulsion having a high silver content which is capable of being bleached to satisfactorily low levels of residual silver. It differs from the invention only in the choice of the cyan coupler. However, the Board does not consider that it was obvious for one skilled in the art to proceed even from this combination to emulsions comprising the cyan couplers of the invention, for the reasons given in the previous paragraph.
11. The Appellant also made reference to document (2). This discloses the use of other couplers which can be used in association with relatively thick layers of silver, allegedly without loss of bleachability. While there may be other cyan couplers which give a satisfactory performance, this does not impinge on the potential inventiveness of the claimed couplers as alternatives to those already known.
12. Turning to the argument to the effect that there is an absence here or comparative tests with the substances disclosed in the closest prior art, it is a frequent

occurrence that patents, and particularly patents in the chemical field, seek to demonstrate the qualities of an alleged invention by the inclusion of comparative tests. The Boards have held in earlier decisions, (Spiro compounds/CIBA GEIGY T 181/82 OJ 9/1984, 401 and Photographic couplers/Kodak T 197/86, OJ 9/1989, 371) that where comparative tests are necessary for the purposes of showing the existence of an inventive step, the comparison must normally be made with the closest state of the art, and that the improvement is due to the feature claimed which distinguishes the invention from the prior art.

13. However, both of those cases started from the factual premise that, although the compounds in issue were novel, there was good reason to expect that they were such as would readily have occurred to the skilled worker on seeing the general formula disclosed by the closest prior art, and that the new compounds claimed would be expected to have comparable properties. Consequently, in those cases it might have been possible to displace this prima facie inference of obviousness by demonstrating that an inventive step resided in the surprising discovery that, although many possible substitutions could be made, some of them gave rise to products having exceptionally good properties.
14. The situation found in those cases is to be contrasted with the present case, in which it is not prima facie obvious to take the step which distinguishes the invention from the closest prior art, and to arrive at the claimed alternative. The true distinction is not between whether an invention happens to be described as being an "alternative", or as an "improvement" with respect to what has gone before. To be patentable, it must be novel, i.e. different, and, being different, it is likely to be better

in some respects, and worse in others. Rather, the correct point of distinction is between the situation in which the alleged invention is prima facie obvious, as contrasted with the situation in which it is not. Where an alleged invention is prima facie obvious having regard to the prior art, nevertheless it is sometimes possible to prove inventiveness by comparative tests showing a significant improvement over the closest prior art. That situation is to be contrasted with other cases, such as the present one, in which it is not prima facie obvious to make the claimed compounds at all, and therefore comparative are not essential to establish inventiveness.

15. From the above it is clear that the subject matter of Claim 1 cannot be derived in an obvious manner from the cited state of the art, and involves an inventive step as required by Article 56 EPC. The claim is, therefore, patentable, as also are the dependent Claims 2 to 10 which relate to further variants falling within the ambit of Claim 1.

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman

Mrs M. Beer

Mr P. Lançon