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D E C I S I O N
of 24 June 1999

Case Number: T 0674/94 - 3.3.6

Application Number: 85115316.3

Publication Number: 0185243

IPC: G03C 1/005

Language of the proceedings: EN

Title of invention:

Photosensitive silver halide material for obtaining half-tone black-and-white images and method for half-tone high-contrast reproduction

Patentee:

Minnesota Mining and Manufacturing Company

Opponent:

Fuji Photo Film Co., Ltd.
Du Pont de Nemours (Deutschland) GmbH - Patentabteilung

Headword:

Photosensitive silver halide material/3M

Relevant legal provisions:

EPC Art. 54(1)(2), 56, 114(2)

Keyword:

"Prior art (no)"
"Inventive step (yes)"

Decisions cited:

T 0674/91

Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 0674/94 - 3.3.6

D E C I S I O N
of the Technical Board of Appeal 3.3.6
of 24 June 1999

Appellant: Fuji Photo Film Co., Ltd.
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Decision under appeal: Interlocutory decision of the Opposition Division
of the European Patent Office posted 5 August
1994 concerning maintenance of European patent
No. 0 185 243 in amended form.

Composition of the Board:

Chairman: P. Krasa
Members: G. N. C. Rathes
M. Lewenton

Summary of Facts and Submissions

I. This appeal lies from the Opposition Division's decision maintaining in amended form European patent No. 0 185 243, which resulted from an application claiming a priority date of 17 December 1984. In two notices of opposition, both based on lack of inventive step and one in addition on lack of novelty, the following documents had been submitted, inter alia:

(1) JP-A-58 215 642 (translation into English)

(2) JP-A-58 190 944 (translation into English)

(3) Research disclosure RD 19551, Jul 1980

(3e) Leaflet entitled CRONAR Bright Light Contact, BLC, CRONAR Bright Light E Film, BLE, CRONAR Bright Light Duplicating, BLD

(12) DE-A-34 03 825

II. Claim 1 of the patent as maintained by the Opposition Division read:

"A silver halide photosensitive material for obtaining black-and-white half-tone dot or line images, comprising coated on a support one or more hydrophilic colloidal layers at least one of which is a silver halide emulsion layer comprising polymer latexes and stabilizers, characterized by the fact that said silver

halide emulsion layer includes a silver chlorobromide emulsion having a mean grain size lower than 0.15 μm and at least 98 % mol chloride comprising a water soluble trivalent rhodium salt reactively associated with a vinyl addition hydrophobic polymer latex having particles with a mean diameter ranging from 0.02 to 0.1 μm in combination with a stabilizer selected from the group consisting of 4-hydroxy-1,3,3a,7-tetraazaindenes, benzotriazoles and benzimidazoles."

III. Claim 7 of the patent as maintained by the Opposition Division read:

"Method for obtaining a black-and-white high contrast half-tone line or dot image, wherein a silver halide photosensitive material comprising polymer latexes and stabilizers, is image-wise exposed for forming half-tone images and subjected to a photographic process comprising an alkaline developing solution, characterized by the fact of reactively associating a silver chlorobromide emulsion, having a mean grain size lower than 0.15 μm and at least 98 % mol chloride comprising a water soluble trivalent rhodium salt in the photosensitive material with a vinyl addition hydrophobic polymer latex having particles with a main diameter ranging from 0.02 to 0.1 μm in combination with a stabilizer selected in the group consisting of 4-hydroxy-1,3,3a,7-tetraazaindenes, benzotriazoles and benzimidazoles."

IV. The Opposition Division found that the subject-matter of Claims 1 and 7 as maintained was novel and inventive, in particular over documents (1) and (2).

V. Appellant I (Opponent I) argued in essence

- that document (1) was to be considered the closest state of the art, a view shared by the Opposition Division;
- that document (1) differed from the invention in the specific chloride content of silver chlorobromide emulsion and in the mean diameter of the polymer latex;
- that these two distinguishing features did not contribute to an inventive step in view of documents (1), (2), (3), and (12);
- that it was known how to use small latex particles to prevent the performance of the photographic material from being impaired e.g. from document (3) disclosing the use of water-insoluble polymer latex particles having a mean diameter of most commonly 0.02 to 0.2 μm ;
- that it was, therefore, obvious for a skilled person to use polymer latex particles having a mean diameter from 0.02 to 0.1 μm - a conclusion which had also been drawn by the Opposition Division;
- that document (2) disclosed all features of Claim 1 except the specific chloride content of

the silver chlorobromide emulsion and the specific mean diameter of the polymer latex particles;

- that Claim 1 of document (12) disclosed a silver halide photosensitive material comprising at least one silver halide emulsion layer coated on a support having a mean grain size of 0.1 to 0.3 μm and at least 80 mol% chloride;
- that in Examples 6 and 9 of document (12) chlorobromide emulsions having a chloride content of 98 mol% and an average particle size of 0.15 μm were disclosed.

He concluded

- that the subject-matter of Claim 1 as maintained by the Opposition Division was rendered obvious by the combined teaching of documents (1),(2),(3) and (12).

VI. Appellant II (Opponent II) submitted on 12 December 1994 four affidavits with the Grounds of Appeal. Two of them (signed by a Mr Tobben and a Mr Friedrich, respectively) related to a contended prior public use of a product BLC in Germany; the other two (signed by a Mr Oertel and a Mr Shock, respectively) related to a contended prior public use of a product BLC III in the United States of America. A further affidavit (Eidesstattliche Erklärung) by a Mr Ulitsky referring also to the prior public use alleged for Germany was submitted on 13 December 1994.

Appellant II argued

- that these new facts and the supporting evidence should be admitted, even if filed late, since this was only in reaction to the decision under appeal;
- that the thus proved prior use anticipated the claimed subject-matter;
- that document (2) did not teach how to avoid a high chloride content above 98%;
- that the effects (i.e. covering power and good developability) of the distinguishing features (i.e. reduced grain size of silver halogenide and particle size of the latex) with respect to document (1) as closest state of the art were to be expected because the adaptation of these features was within the normal skills of the skilled person and deducible from common general knowledge;
- that such common general knowledge was to be proved in this particular technical field not only by text books but also by technical teachings disclosed in various documents and concurring with each other.

VII. The Respondent (Proprietor) argued with respect to novelty

- that the facts and evidence submitted by Appellant II (Opponent II) with respect to a

prior use of the products BLC and BLC III should not be admitted since the explanations for their late filing were insufficient and the facts were moreover insufficiently substantiated and partly incorrect;

- that the late filing represented an inadmissible attempt to prolong the period of opposition and amounted to an abuse of the proceedings;
- that a sample of the product CRONAR BLC, offered on the market in the early 1980s and examined on 6 June 1981 had an average silver halide grain size of 0.27 μm with a range starting from 0.20 to 0.37 μm which was outside the scope of Claim 1 of the patent in suit.

The Respondent argued with respect to inventive step

- that the goals of the present invention were achieved if three conditions were fulfilled simultaneously, namely
 - (1) the average grain size of the silver halide emulsion was reduced,
 - (2) its chloride content was increased and
 - (3) the emulsion was combined with a specific polymer latex;
- that the whole content of documents (1), (2) and (12) had precisely proved that before the priority date of the patent a small grain size

of the silver halide in the emulsion was combined with a high bromide content while on the other hand at a very low bromide content (< 2%), low grain sizes were not used.

VIII. Appellant II replied that

- late filed facts and evidence should be admitted;
- the evidence forwarded in the form of affidavits was based on documents which, however, contained trade secrets and should, therefore, be treated confidentially, apart from an inspection by the Board;
- grain size measurements on CRONAR BLC had been documented in an affidavit;
- the apparent contradiction between the silver halogenide grain size observed by the Respondent and that of the product CRONAR BLC submitted by Appellant II could be explained by the fact that the sample measured by the Respondent was not a sample of CRONAR BLC but one of its precursor;
- the alleged problem and the prejudice related to it would not have existed.

IX. Oral proceedings took place on 24 June 1999. The Appellants requested that the decision under appeal be set aside and that the European patent No. 0185243 be revoked. The Respondent requested that the appeals be dismissed. At the end of the

oral proceedings the Chairman announced the Board's decision.

Reasons for the Decision

1. The Appeals are admissible.

2. *Amendments*

The Board is satisfied that the claims in the form maintained by the Opposition Division meet the requirements of Articles 84, 123(2) and (3) EPC. As no objections have been raised in this respect, no detailed reasoning needs to be given.

3. *Novelty*

3.1 Claim 1

3.1.1 Prior use

3.1.1.1 Late filed submissions (Article 114(2) EPC)

Four affidavits by Messrs. Friedrich, Tobben, Shock and Oertel, respectively, were introduced into the proceedings for the first time by Appellant II on 12 December 1994 with his Grounds of Appeal; the fifth affidavit referred to by Appellant II was submitted one day later, i.e. all were filed more than three years after expiry of the opposition period. All these affidavits relate to facts which Appellant II contended had occurred in 1981, i.e. before the

priority date of the patent in suit.

Appellant II offered as an explanation of the late filing of these affidavits that the Opposition Division maintained the patent in a substantially amended form, and that, for this reason, further investigation in the prior public use issue became necessary only after the issuance of the appealed decision. The contended prior public use consisted in Appellant II's own activities, and the amendments of the patent in suit as executed in the course of the opposition proceedings consisted in essence only in the incorporation of dependent Claims 2 and 3 as granted into the independent Claim 1 as granted. Therefore, the Board has grave doubts that the said explanation could really excuse and justify the late addressing of the prior public use allegedly anticipating the subject-matter of the present Claim 1 and the late filing of the respective evidence. However, in view of the lack of conclusive evidence (see point 3.1.1.2), it is not necessary to decide this issue.

3.1.1.2 Substantiation

3.1.1.2.1 In order to determine whether an invention has been made available to the public by prior use, the following circumstances must be clarified:

- (a) the date on which the prior use occurred ("when" issue)
- (b) exactly what was in prior use ("what" issue)

(c) the circumstances surrounding the prior use (place, confidentiality).

In view of the evidence provided by Appellant II, for instance, and the arguments presented by the parties, it is clear that the issue of prior use boils down to the question whether a specific commercial product had beyond any reasonable doubt an identical composition before and after the priority date of the patent in suit; in this case, the product is CRONAR, a photosensitive material which, inter alia, should have a silver chlorobromide emulsion having a mean grain size lower than 0.15 μm and at least 98 mol% chloride and latex particles with a mean diameter ranging from 0.02 to 0.1 μm .

3.1.1.2.2 The most relevant documents relied upon by Appellant II can be summarized as follows:

- (1) The leaflet entitled CRONAR Bright Light Contact, BLC, CRONAR Bright Light E Film, BLE, CRONAR Bright Light Duplicating, BLD (Document (3e)) discloses advantages such as low base fog and the excellent dot-for-dot copying and technical data of these products; the leaflet does not however disclose the features of Claim 1. It is, therefore, not apt to prove what was actually used.
- (2) Mr Friedrich's affidavit, dated 1 June 1994, specifies various parameters of the sensitive material CRONAR BLC produced until October 1981 in Germany, but is silent on the size of the

latex particles. An indirect reference to this parameter is obviously intended by point 4 of this affidavit reading: *"Außerdem wurden der Emulsion des BLC je mol Silberchlorid noch zur Reifung 115 g einer wäßrigen Lösung von 4-Hydroxy-6-methyl-1,3,3a,4-terazainden mit einem Gehalt von 3,93 Gewichtsprozent und vor dem Beschichten 66,7 g einer wäßrigen Dispersion von Polyethylacrylat mit einem Feststoffgehalt von 30 Gewichtsprozent (interner Code: Latex CP 16) zugesetzt. Diese Dispersion wurde durch Emulsionspolymerisation von Ethylacrylat mit 4 Gewichtsprozent Natriumlaurylsulfit und einem Peroxodisulfat-Sulfit-Initiatorgemisch in weitgehender Analogie zum Verfahren der Procedure A der US 33 25 286 hergestellt."*

However, neither is there any further specification of the "Latex CP 16" nor is the statement of a "far reaching analogy" sufficient to clearly and unambiguously establish the nature of the actual process used to manufacture the latex, let alone to allow a reliable conclusion relating to its particle size. In view of this insufficient information on the latter parameter, the Board concludes that Mr Friedrich's affidavit, per se, is not convincing evidence of the alleged prior public use.

Mr Tobben's affidavit relates to activities by which the product Bright Light Film BLC was made available to the public, as does Mr Ulitzky's

affidavit. Both contain no details of the product composition; therefore, these affidavits cannot prove the alleged prior public use, either alone or in combination with each other or with Mr Friedrich's affidavit.

- (3) Mr Oertel's affidavit states that a high contrast film BLC III was used on 22 July 1981 at Hallmark Cards, United States of America, without any secrecy obligation. It mentions, inter alia, latex CP 16 as a constituent of film BLC III but is also silent on the size of the latex particles. For this reason, the Board concludes that Mr Oertel's affidavit, per se, is not convincing evidence of the alleged prior public use.

Mr Shock's affidavit states that the film BLC III (type 921) was used between August and October 1981 at Crossroad Press, Inc.(USA) without a secrecy agreement and gives details of the composition of the film. Information on the polyethylacrylate latex CP 16 is given in point 9 which reads:

"The particle size of CP-16 latex was measured per my request by Larry Rosen in January 1992 using photon correlation spectroscopy to have mean particle diameter of 0.051 +/- 0.002 micrometers. Based on a discussion with George Whitney, who was in charge of the chemical area where CP-16 is manufactured, I have learned that there has been no change in the manufacturing

procedure of CP-16 over the last 15 years. Hence, there is no reason for the particle size of CP-16 to have been different for the film evaluated at Crossroads Press."

Whereas this affidavit - and only this one - gives a diameter of the latex particle of $0.051 \pm 0.002 \mu\text{m}$, it is to be noted that this size was not measured with a product of prior use but only with a product manufactured about 8 years after the priority date of the patent in suit. Mr Shock's statement that "there has been no change in the manufacturing procedure of CP-16 over the last 15 years" does not stem from his own genuine knowledge but only from a discussion with a Mr Whitney, i.e. from hearsay. Therefore, this statement is not sufficient proof beyond any reasonable doubt that the size of the latex particles measured in 1992 was the same at the time of the contended prior public use. It follows that Mr Shock's affidavit is also not sufficient to prove the alleged prior public use, either as such or in combination with any of the other submitted affidavits.

3.1.1.2.3 Summing up, it is far from evident that the various documents relied upon by Appellant II are actually concerned with products which were identical in all respects with the subject-matter claimed in the patent in suit, since none contains reliable information which establishes the latex particle size beyond any reasonable doubt.

It is also noted that there exists no one sole

affidavit specifying all the relevant parameters as measured on a product actually sold (or distributed) before the priority date of the patent in suit, nor a complete chain of evidence which could remedy this deficiency.

It follows that the submitted evidence does not allow an unambiguous conclusion that the alleged prior public use of an embodiment falling within the scope of Claim 1 existed.

3.1.1.2.4 During the oral proceedings before the Board, Appellant II submitted that he had designated in the Grounds of Appeal the witnesses Friedrich, Tobben, Shock and Oertel, and that the Board, finding that the affidavits were insufficient, could have heard them.

However, a decision to hear a witness will only be rendered if the Board considers this to be necessary (Rule 27 EPC). In the present case, all the designated witnesses signed affidavits which were submitted to the Board. As the purpose of an affidavit is to render unnecessary the hearing of a witness and to replace such oral evidence by written testimony (see also T 0674/91, point 3.1 of the Reason for the Decision; not published in the OJ EPO), there was no need for the Board to make a decision to hear oral evidence. Moreover, Appellant II indicated that written documents on which the affidavits were based contained trade secrets and should not be introduced into public appeal proceedings but only be presented to the Board for inspection.

As a decision in public appeal proceedings can only be based on material submitted and placed on file, thereby becoming available to the public without any restriction as long as it is not excluded from file inspection according to Rule 93 EPC, the Board could not have considered any "confidential" material. Therefore, no additional information going beyond the contents of the affidavits already submitted was to be expected from hearing the designated witnesses.

For these reasons, it was neither appropriate nor necessary for the Board to hear the designated witnesses of its own motion.

3.1.1.2.5 Appellant II argued that the latex particle size of 0.02 to 0.10 μm as stated in Claim 1 should be considered as common general knowledge although it was not yet part of standard photographic text books.

The Board accepts that the proof of common general knowledge is not necessarily restricted to textbooks but can under certain circumstances also be accomplished by reference to technical or scientific articles etc. However, the technical teaching of such publications has to be consistent so that it can be taken indeed as the common general knowledge of the skilled person concerned.

In the present case, the specific range of 0.02 to 0.10 μm was not consistently disclosed in the documents cited by Appellant II in his letter of 8 December 1994 (pages 14 and 15). For example

document (3) discloses a particle size of up to 2.0 μm ; the range of 0.2 to 0.20 μm is only designated as being the most common one, which does not exclude other values for the particle size of up to 2.0 μm .

Therefore, the Board concludes that the argument of common general knowledge is not supported by the documents on file. Consequently Appellant II's argument that document (1) anticipates the subject-matter of Claim 1 of the patent in suit in view of general common knowledge cannot be accepted.

3.1.2 Patent literature

The Board is satisfied that none of the cited documents anticipates the subject-matter of Claim 1. Since no objections based on any of the cited documents have been raised in this respect, no detailed reasoning needs to be given.

3.1.3 It follows that the subject-matter of Claim 1 complies with the requirements of Article 54 and is novel.

3.2 Inventive step

3.2.1 Claim 1 concerned a photosensitive material comprising a silver bromide emulsion having a mean grain size lower than 0.15 μm and at least 98 mol% chloride, a water soluble trivalent rhodium salt reactively associated with a vinyl addition hydrophobic polymer latex having particles with a mean diameter ranging from 0.02 to 0.10 μm in

combination with a stabilizer selected from 4-hydroxy-1,3,3a,7-tetraazaindenes, benzotriazoles and benzimidazoles.

Such photosensitive materials were already known from documents (1) and (2).

3.2.2 Document (1) discloses a silver halide photosensitive material comprising inter alia a silver chlorobromide emulsion having a bromide content of 3 to 20 mol%, preferably 5 to 10 mol%, which implies a chloride content of 80 to 97 mol%, preferably of 90 to 95 mol% (page 8, lines 6 to 14) and a grain size of 0,20 μm , preferably of 0,12 μm to 0,18 μm (page 8, lines 15 to 20) and a soluble rhodium salt such as rhodium (III) chloride or sodium rhodium (III) bromide (page 9, lines 3 and 4), a polymer latex having a mean grain size of 1 μm or less (page 10, lines 17 to 20) which may be poly-(ethylacrylate) or poly-(butylacrylate) (page 11, Examples 1 and 3) and thus meeting the requirement of a vinyl addition hydrophobic polymer latex, and anti-fogants such as azaindenes, for example, 4-hydroxy-6-methyl-1,3,3a,7-tetraazaindene or triazoles (page 15, lines 6 and 7 from the bottom).

Therefore, the photosensitive materials disclosed in document (1) differ in essence from those of Claim 1 in the specific chloride content and in the particle size of the polymer latex.

3.2.3 Document (2) discloses a silver halide photosensitive material comprising, inter alia, a silver chlorobromide emulsion having an average

grain size of from 0.10 to 0.25 μm , and a silver bromide content of 3 to 15 mol%, preferably 5 to 10 mol%, which implies a chloride content of 85 to 97 mol%, preferably of 90 to 95 mol% (page 9, lines 7 to 15 after the formula), a water soluble rhodium salt (for example chloride)(page 13, line 15 from the bottom), a polyoxyalkylene oxide compound which is a condensation product, a synthetic hydrophobic polymer (page 13, line 11 from the bottom), polymer latexes such as alkylacrylates (page 14, line 2), a compound of the tetrazolmercaptan type and a stabilizer such as 4-hydroxy-6-methyl-1,3,3a,7-tetraazaindene, or 5-methylbenzotriazole (page 13, lines 6 and 7 from the bottom).

Thus, the photosensitive materials disclosed in document (2) differ in essence from those of Claim 1 in the grain size of the chlorobromide emulsion, and in the chloride content; the particle size of the polymer latex is missing in document (2).

3.2.4 The problem of document (1) was to provide a bright-room type photosensitive material having inter alia excellent image quality under a wide latitude of light exposure and improved image quality when processed with a lith developer (page 3, lines 6 to 15), which is an indication of aiming at a high contrast image (page 9, line 9).

3.2.5 The Appellants as well as the Opposition Division considered document (1) as the closest state of the art. The Board can accept this citation as the starting point for evaluating inventive step.

3.2.6 Tables 5, 6 and 7 of the patent in suit display the most relevant sensitometric characteristics of films according to the patent in suit. However, no comparative tests are available which would allow a comparison of these sensitometric characteristics with those of films according to the state of the art, in particular, with those of document (1).

Therefore, the problem to be solved has to be defined as providing a further photosensitive material for obtaining black-and-white half-tone dot or line images.

3.2.7 In view of Tables 1 to 7, in particular Tables 5 to 7, of the patent in suit which exhibit sensitometric data of a number of films according to Claim 1 of the patent in suit, the Board is satisfied that the claimed subject-matter solves the technical problem as defined above.

Under these circumstances it is not necessary to deal with the issue whether or not the reported data show a statistically significant improvement of certain film properties.

It results from Table 4 of document (1) that a silver bromochloride with a grain size of 0.18 μm and a chloride content of 95 mol% or 85 mol% provides a substantially better performance (in respect to image quality, latitude of light exposure and silver sludge generation) than a silver bromochloride with a chloride content of 98.5 mol%.

The teaching of document (1) was unequivocal: the

effect of the image quality depended on the silver halide grain size, the bromide content, implicitly therefore the chloride content, and the weight ratio of polymer latex based on binder: excellent results were obtained if the respective ranges were respected (page 27, lines 16 to 21; see also above point 3.2.2).

Therefore, document (1) cannot render obvious the subject-matter of Claim 1.

3.2.8 The question is whether the skilled person having in front of him document (1) would have relied on document (2) for arriving at the present invention.

The problem of document (2) was to obtain a **high contrast** image and a short developing time (sentence bridging pages 3 and 4). So the skilled person would have consulted document (2) when looking for a solution to the technical problem as defined (page 2, lines 10 to 16).

In view of document (2), the skilled person would have taken an adjustment of the grain size to values as low as 10 μm into consideration.

However, even if the skilled person lowered the grain size to values as low as 0.10 μm i.e. below 0.15 μm , neither document (2) nor any other document points to simultaneously increasing the concentration of chloride in the silver bromochloride above 97 mol% (page 9, paragraph 2, line 5); this upper value of 97 mol% is not an arbitrary limit but technically justified, which a

skilled person would have understood from document (1) (see above point 3.2.7).

Furthermore, according to document (2), the preferred range of the chloride content is 90 to 95 mol%. This is lower than 97 mol%, and hence lower than 98 mol%, which is the lower limit of the patent in suit, and points to a direction which is the opposite of that of the claimed solution. Therefore document (2) gives neither as such nor in combination with document (1) any incentive for the skilled person to avail himself of a chloride content of at least 98 mol%.

Document (12) discloses photosensitive silver halogenide material in which the silver halogenide of the emulsion contains a least 90 mol% silver chloride (page 6, Claim 16). It is concerned with the improvement of the bright-room stability of the respective films (page 8, second paragraph to page 9, last line). The suggested solution consists in the use of a major amount of an organic desensitising agent in combination with a minor amount of a rhodium salt and leading to high contrast pictures (page 37, lines 18 to 25).

In Example 6 of document (12), referred to by Appellant I, the grain size was 0.15 μm and the chloride content 98 vol.%; gradation measurements however are missing. The same is true of Example 9 of document (12). Whereas this citation contains no experimental data of the influence of a chloride content of 98% on the contrast to be achieved, its Examples 1 and 2 report $\tilde{\alpha}$ values between 4.2 and 4.7

for emulsions with silver chlorobromide containing 97 mol% chloride and its Examples 3 to 5 exhibit \bar{a} values in the range of from 5.2 to 8.7 for emulsions containing silver chlorobromide with chloride content of 95 mol%.

Therefore, a skilled person realising that a chloride content of 95% was superior to a chloride content of 97% in terms of \bar{a} values would have had no reason to neglect the implicit warning to be found in document (1) against increasing the chloride content above the value of 97% and would not have paid unusual attention to the Examples 6 and 9 of document (12) which were silent in respect of gradation.

It follows that document (12) contains no incentive for the skilled person to suggest a photographic material comprising a silver chlorobromide with a chloride content of at least 98% as a solution to the existing technical problem.

Under these circumstances, the disclosure of documents (1), (2) and (12) either alone or in combination did not lead the skilled person to a chloride concentration of higher than 97 mol% in the silver chlorobromide used. Consequently, these citations did not render obvious the claimed subject-matter.

3.2.9 Therefore the subject-matter of Claim 1 involved an inventive step.

4. *Claim 7*

Claim 7 represents an embodiment of the same invention in terms of a method. It derives its patentability from that of Claim 1 as do the dependent Claims 2 to 6.

Order

For these reasons it is decided that:

The appeals are dismissed.

The Registrar

The Chairman:

G. Rauh

P. Krasa