

Decision
of the Court of First Instance of the Unified Patent Court
delivered on 28 January 2025
concerning EP 3 594 009 B1

Headnotes:

1. If the defendant is domiciled in a Contracting Member State (here: Germany), the Unified Patent Court has jurisdiction to hear the infringement action in respect of the UK part of the patent in suit. This also applies if the defendant has filed a counterclaim for revocation in respect of the German part of the patent in suit. Even then, as regards the infringement action concerning the United Kingdom, the Unified Patent Court has jurisdiction to hear the case.
2. The terms used in a claim should normally be given their broadest technically sensible meaning in the context of the claim in which they appear. Art. 69 EPC and its Protocol do not provide a justification for excluding what is literally covered by the terms of the claims by a narrowing claim construction based on the description or the drawings. A narrowing interpretation of the claims which deviates from the broader general understanding of the terms used therein by a skilled person can only be permitted if there are convincing reasons based on the circumstances of the individual case in question.
3. Implicit disclosure means no more than the clear, immediate and unambiguous consequence of what is explicitly mentioned in a prior-art document. Therefore, “implicit disclosure” encompasses any feature which a person skilled in the art would objectively consider as necessarily implied in the explicit content of a prior-art document, e.g. in view of general scientific laws. A claimed feature is also implicitly disclosed if, in carrying out the teaching of a prior-art document, the skilled person would inevitably arrive at a result falling within the terms of a claim. Whether a known product possesses an implicit feature does not depend on whether the skilled person's attention is drawn to precisely that feature by a prior art document or their common general knowledge, but merely on whether, from a purely objective perspective, said product inevitably must possess that feature.
4. To comply with Art. 123(2) EPC, the subject-matter of an amended claim must be directly and unambiguously taught to the skilled person by the original application. A direct teaching requires that the subject-matter is originally taught as specific, clearly defined and recognizable individual embodiment, either explicitly or implicitly, without the necessity of applying any deductive skills. An unambiguous teaching requires that it has to be beyond doubt – not merely probable – that the claimed subject-matter of an amended claim was disclosed as such in the application as originally filed.

Keywords:

Long arm jurisdiction; narrowing claim construction; implicit disclosure; added matter

CLAIMANT:

FUJIFILM Corporation, 26-30, Nishiazabu 2-chome, Minato-ku, Tokyo 106-8620, Japan,

represented by: Attorney-at-law Lars Baum, Attorney-at-law Amedine Métier, Attorney-at-law Laurène Borey, Attorney-at-law Alix Fourmaux, Attoreney-at-law Joscha Torweihe, HOYNG ROKH MONEGIER, Steinstraße 20, 40212 Düsseldorf, Germany,

assisted by: Patent Attorney Christian Hollatz, Patent Attorney Claudia Schwartzkopff, Ter Mer Steinmeister & Partner Patentanwälte mbB, Nymphenburger Straße 4, 80335 München, Germany,

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DEFENDANTS:

1. **Kodak GmbH**, represented by its CEOs Sven Freyer and Manfred Stegmaier, Kesselstraße 19, 70327 Stuttgart, Germany,
2. **Kodak Graphic Communications GmbH**, represented by its CEOs Sven Freyer and Manfred Stegmaier, Kesselstraße 19, 70327 Stuttgart, Germany,
3. **Kodak Holding GmbH**, represented by its CEOs Sven Freyer and Manfred Stegmaier, Kesselstraße 19, 70327 Stuttgart, Germany,

all Defendants represented by: Attorney-at-law Wolrad Prinz zu Waldeck und Pyrmont, Attorney-at-law Kilian Seidel, Attorney-at-law Eva Acker, Freshfields Partnerschaftsgesellschaft mbB, Feldmühleplatz 1, 40545 Düsseldorf, Germany,

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assisted by: Patent attorney Dr Natalia Berryman, Patent Attorney Dr Ursula Schnakenbeck, Vossius & Partner Patentanwälte Rechtsanwälte mbB, Siebertstraße 3, 81675 München, Germany,

PATENT AT ISSUE:

European patent No. EP 3 594 009 B1

PANEL/DIVISION:

Panel of the Local Division in Düsseldorf

DECIDING JUDGES:

This decision is delivered by Presiding Judge Thomas acting as judge-rapporteur, the legally qualified judge Dr Thom, the legally qualified judge Lopes and the technically qualified judge Dr Parchmann.

LANGUAGE OF THE PROCEEDINGS: English

SUBJECT OF THE PROCEEDINGS: Patent infringement action and counterclaim for revocation

DATE OF THE ORAL HEARING: 17 December 2024

SUMMARY OF THE FACTS:

Claimant is suing the Defendants for infringement of EP 3 594 009 B1 (hereinafter: the patent in suit).

The patent in suit is in force in Germany and the United Kingdom. The application was filed in English at the European Patent Office on 11 July 2018, claiming the priority of the Japanese patent application JP 2017 1372 49 (13 July 2017). The mention of the grant of the patent in suit was published by the European Patent Office on 21 April 2021.

No opposition has been filed at the EPO against the patent in suit. Nor had any national revocation action been filed at the time the infringement action was filed. However, on 2 February 2024, Defendants filed a counterclaim for revocation (CC_3088/2024, CC_3090/2024 and CC_3093/2024).

On 4 June 2024, Claimant filed an Application to amend the patent. By order of 2 August 2024 (ORD_40822/2024), that application to grant the Claimant's request for leave to change the application to amend the patent has been rejected by the judge-rapporteur. At the same time, the judge-rapporteur has ordered that the amended set of requests for the application to amend the patent in suit is classified as a subsequent request to amend the patent in suit (R. 30.2 RoP), which is admissible only with permission of the Court. Said subsequent request to amend the patent was admitted.

On 23 November 2023, Defendants lodged a preliminary objection with regard to international jurisdiction and competence of the Court (App_589083/2023 and App_589085/2023). The judge-rapporteur has informed the Parties on 26 January 2024 that the Court will deal with the preliminary objection in the main proceedings in the light of the forthcoming opinion of the Advocate General in the Case BSH Hausgeräte GmbH v. Aktiebolaget Electrolux C-339/22.

The patent in suit is titled "Lithographic printing plate original plate, and method for producing lithographic printing plate". Its claims 1, 2, 3, 4, 6 and 12 read as follows:

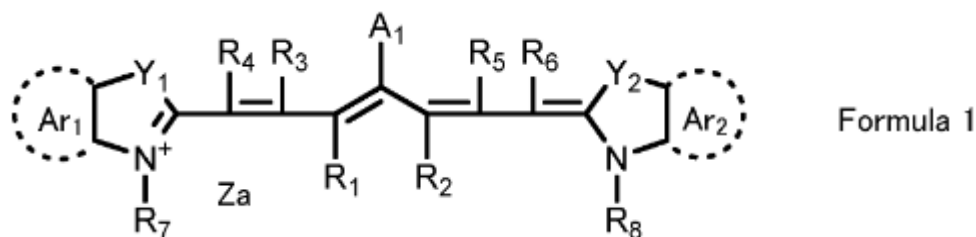
Claim 1:

"A lithographic printing plate precursor comprising

an image recording layer on a hydrophilic support,

characterized in that the image recording layer comprises a polymerization initiator, an infrared absorbent, a polymerizable compound, and an acid color former,

the infrared absorbent comprises a compound represented by the following Formula 1, and the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one compound of the polymerization initiator is 0.60 eV or less,



wherein R_1 and R_2 each independently represent a hydrogen atom or an alkyl group, R_1 and R_2 are optionally mutually linked to form a ring, R_3 to R_6 each independently represent a hydrogen atom or an alkyl group, R_7 and R_8 each independently represent an alkyl group or an aryl group, Y_1 and Y_2 each independently represent an oxygen atom, a sulfur atom, $-NR_0-$ or a dialkylmethylene group, R_0 represents a hydrogen atom, an alkyl group or an aryl group, Ar_1 and Ar_2 each independently represent a group that forms a benzene ring or a naphthalene ring optionally having $-X$ described below, A_1 represents $-NR_9R_{10}$, $-X_1-L_1$, or $-X$ described below, R_9 and R_{10} each independently represent an alkyl group, an aryl group, an alkoxy carbonyl group, or an arylsulfonyl group, X_1 represents an oxygen atom or a sulfur atom, L_1 represents a hydrocarbon group, a heteroaryl group, or a group where a bond with X_1 is to be cleaved by heat or infrared exposure, Za represents a counter ion that neutralizes charge, and at least one of Ar_1 or Ar_2 has a group represented by the following Formula 2:

$-X$ Formula 2

wherein X represents a halogen atom, $-C(=O)-X_2-R_{11}$, $-C(=O)-NR_{12}R_{13}$, $-O-C(=O)-R_{14}$, $-CN$, $-SO_2NR_{15}R_{16}$, or a perfluoroalkyl group, X_2 represents a single bond or an oxygen atom, R_{11} and R_{14} each independently represent an alkyl group or an aryl group, and R_{12} , R_{13} , R_{15} and R_{16} each independently represent a hydrogen atom, an alkyl group, or an aryl group."

Claim 2:

"The lithographic printing plate precursor according to claim 1, wherein X in Formula 2 represents a fluorine atom, a chlorine atom, or $-C(=O)OR_{17}$, provided that R_{17} represents an alkyl group or an aryl group."

Claim 3:

"The lithographic printing plate precursor according to claim 2, wherein A_1 in Formula 1 represents $-NR_{18}R_{19}$ or $-SR_{20}$, provided that R_{18} and R_{19} each independently represent an aryl group and R_{20} represents a hydrocarbon group or a heteroaryl group."

Claim 4:

"The lithographic printing plate precursor according to any one of claims 1 to 3, wherein the polymerization initiator is a borate compound."

Claim 6:

"The lithographic printing plate precursor according to any one of claims 1 to 5, wherein the polymerization initiator comprises an electron-donating polymerization initiator and an electron-accepting polymerization initiator."

Claim 12:

“A method of preparing a lithographic printing plate, comprising a step of imagewise exposing the lithographic printing plate precursor according to any one of claims 1 to 11, thereby forming an exposed portion and an unexposed portion, and a step of feeding at least one of printing ink or dampening water, thereby removing the unexposed portion.”

The Defendants are part of a multinational group known in particular as a producer and supplier of film materials (hereinafter: Eastman Kodak Group). Among other printing materials, the Eastman Kodak Group mainly produces and offers printing plates, *inter alia* several generations of printing plates marketed under the product name “SONORA X” and the umbrella name “SONORA XTRA”.

Defendants 1) to 3) are German direct and indirect subsidiaries of Eastman Kodak Company, located in Rochester, N.Y., USA, which is the holding of the Eastman Kodak Group. Defendant 3) is a wholly-owned subsidiary of Eastman Kodak Company, Rochester, N.Y., USA. Defendants 1) and 2) are subsidiaries of Defendant 3), whereby Defendant 2) is a wholly-owned subsidiary of Defendant 3). Defendant 1) is a wholly-owned subsidiary of Defendant 2).

Defendant 1) acts as the German sales company which purchases the Kodak products from the UK Kodak company, Kodak Ltd., Watford, UK, and sells them to Germany. Defendant 2) operates as a contract manufacturer of printing plates for a UK entity of the Kodak Group, Kodak Ltd., Watford, UK. It is subject to a control and loss transfer agreement with Defendant 3). According to the information in the German commercial register, the business purpose of the Defendant 3) is, *inter alia*, the acquisition and management of shareholdings in and management of other companies in Germany and abroad.

The Claimant’s infringement action concerns the offer and sale of the products “SONORA X”, “SONORA XTRA-2” and “SONORA XTRA-3” (hereinafter collectively also: “challenged embodiments”).

The challenged embodiments are lithographic printing plate precursors. Besides the challenged embodiment “SONORA X”, in their advertisements, the Defendants refer to the other challenged embodiments “SONORA XTRA-2” and “SONORA XTRA-3” jointly as “SONORA XTRA” plates. “SONORA XTRA” thus is a generic term used for both “SONORA XTRA-2” and “SONORA XTRA-3”.

With regard to the technical design of the challenged embodiments, reference is made to the documents submitted by the Claimant as Exhibits K 13 to K 21.

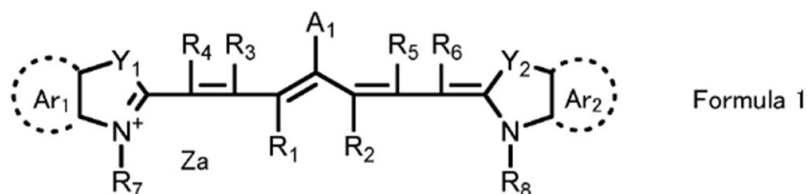
INDICATION OF THE PARTIES’ REQUESTS:

The Claimant requests,

- A. as a main request,
 - I. to hold that the Claimant has demonstrated that the Defendants infringe the claims No. 1, 2, and 3 of the European patent No. 3 594 009;
 - II. to order the Defendants to refrain from

making, offering, placing on the market, using a lithographic printing plate precursor within Germany and the United Kingdom, or storing it for those purposes, that has the following features

1. a lithographic printing plate precursor comprising an image recording layer on a hydrophilic support, characterized in that the image recording layer comprises a polymerization initiator, a polymerizable compound, an acid color former and an infrared absorbent, the infrared absorbent comprises a compound represented by the following Formula 1, and the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one compound of the polymerization initiator is 0.60 eV or less,



wherein R_1 and R_2 each independently represent a hydrogen atom or an alkyl group, R_1 and R_2 are optionally mutually linked to form a ring, R_3 to R_6 each independently represent a hydrogen atom or an alkyl group, R_7 and R_8 each independently represent an alkyl group or an aryl group, Y_1 and Y_2 each independently represent an oxygen atom, a sulfur atom, $-NR_0-$ or a dialkylmethylene group, R_0 represents a hydrogen atom, an alkyl group or an aryl group, Ar_1 and Ar_2 each independently represent a group that forms a benzene ring or a naphthalene ring optionally having $-X$ described below,

A_1 represents $-NR_9R_{10}$, $-X_1-L_1$, or $-X$ described below, R_9 and R_{10} each independently represent an alkyl group, an aryl group, an alkoxy carbonyl group, or an aryl-sulfonyl group, X_1 represents an oxygen atom or a sulfur atom,

L_1 represents a hydrocarbon group, a heteroaryl group, or a group where a bond with X_1 is to be cleaved by heat or infrared exposure, Za represents a counter ion that neutralizes charge,

and at least one of Ar_1 or Ar_2 has a group represented by the following Formula 2:

-X Formula 2

wherein X represents a halogen atom, $-C(=O)-X_2-R_{11}$, $-C(=O)-NR_{12}R_{13}$, $-O-C(=O)-R_{14}$, $-CN$, $-SO_2NR_{15}R_{16}$, or a perfluoroalkyl group, X_2 represents a single bond or an oxygen atom, R_{11} and R_{14} each independently represent an alkyl group or an aryl group, and R_{12} , R_{13} , R_{15} and R_{16} each independently represent a hydrogen atom, an alkyl group, or an aryl group.

- direct infringement of claim 1 EP 3 594 009 B1 -

2. in particular, a lithographic printing plate precursor according to claim 1, wherein X in Formula 2 represents a fluorine atom, a chlorine atom, or $-C(=O)OR_{17}$, provided that R_{17} represents an alkyl group or an aryl group.

- direct infringement of claim 2 EP 3 594 009 B1 -

and/or,

3. the lithographic printing plate precursor according to claim 2, wherein A_1 in Formula 1 represents $-NR_{18}R_{19}$ or $-S-R_{20}$, provided that R_{18} and R_{19} each independently represent an aryl group and R_{20} represents a hydrocarbon group or a heteroaryl group.

- direct infringement of claim 3 EP 3 594 009 B1 -

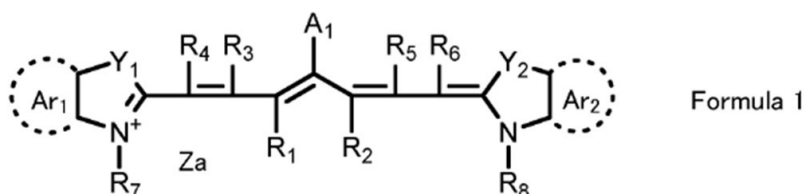
- III. to order that, for each case of violation of the injunction in accordance with point A.II., the Defendants shall jointly and severally pay to the Court a penalty sum of at least EUR 100 per infringing printing plate precursor or, where appropriate, per square meter of infringing product sold, and/or a penalty sum of at least EUR 5,000 per day for each day of violation of this injunction;

B. as a subsidiary request

- I. to hold that the Claimant has demonstrated that the contested SONORA X and/or SONORA XTRA-2 and/or SONORA XTRA-3 reproduce OR implement claims No. 1, 2 and 3 of European patent No. 3 594 009;
- II. to order the Defendants to refrain from

making, offering, placing on the market, using a lithographic printing plate precursor within Germany and the United Kingdom, or storing it for those purposes, that has the following features:

1. a lithographic printing plate precursor comprising an image recording layer on a hydrophilic support, characterized in that the image recording layer comprises a polymerization initiator, a polymerizable compound, an acid color former and an infrared absorbent, the infrared absorbent comprises a compound represented by the following Formula 1, and the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one compound of the polymerization initiator is 0.60 eV or less,



wherein R_1 and R_2 each independently represent a hydrogen atom or an alkyl group, R_1 and R_2 are optionally mutually linked to form a ring, R_3 to R_6 each independently represent a hydrogen atom or an alkyl group, R_7 and R_8 each independently represent an alkyl group or an aryl group, Y_1 and Y_2 each independently represent an oxygen atom, a sulfur atom, $-NR_0-$ or a dialkylmethylene group, R_0 represents a hydrogen atom, an alkyl group or an aryl group, Ar_1 and Ar_2 each independently represent a group that forms a benzene ring or a naphthalene ring optionally having $-X$ described below,

A_1 represents $-NR_9R_{10}$, $-X_1-L_1$, or $-X$ described below, R_9 and R_{10} each independently represent an alkyl group, an aryl group, an alkoxy carbonyl group, or an aryl-sulfonyl group, X_1 represents an oxygen atom or a sulfur atom,

L₁ represents a hydrocarbon group, a heteroaryl group, or a group where a bond with X₁ is to be cleaved by heat or infrared exposure, Z_a represents a counter ion that neutralizes charge,

and at least one of Ar₁ or Ar₂ has a group represented by the following Formula 2:

-X Formula 2

wherein X represents a halogen atom, -C(=O)-X₂-R₁₁, -C(=O)-NR₁₂R₁₃, -O-C(=O)-R₁₄, -CN, -SO₂NR₁₅R₁₆, or a perfluoroalkyl group, X₂ represents a single bond or an oxygen atom, R₁₁ and R₁₄ each independently represent an alkyl group or an aryl group, and R₁₂, R₁₃, R₁₅ and R₁₆ each independently represent a hydrogen atom, an alkyl group, or an aryl group.

- direct infringement of claim 1 EP 3 594 009 B1 -

2. in particular, a lithographic printing plate precursor according to claim 1, wherein X in Formula 2 represents a fluorine atom, a chlorine atom, or -C(=O)OR₁₇, provided that R₁₇ represents an alkyl group or an aryl group.

- direct infringement of claim 2 EP 3 594 009 B1 -

and/or,

3. the lithographic printing plate precursor according to claim 2, wherein A₁ in Formula 1 represents -NR₁₈R₁₉ or -S-R₂₀, provided that R₁₈ and R₁₉ each independently represent an aryl group and R₂₀ represents a hydrocarbon group or a heteroaryl group.

- direct infringement of claim 3 EP 3 594 009 B1 -

- III. to order that, in case of violation of the injunction in accordance with point B.II., the defendants shall jointly and severally pay to the Court a penalty sum of at least EUR 100 per infringing printing plate precursor or, where appropriate, per square meter of infringing product sold, and/or a penalty sum of at least EUR 5,000 for each day of violation of this injunction;

C. as further requests,

- I. to hold that the Defendants shall pay damages to the Claimant compensating all losses caused by the infringing acts in
 - Austria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Italy, Latvia, Malta Lithuania, Poland, Romania, Slovakia, Slovenia, Spain, Sweden and the Netherlands since January 15th, 2020 until April 21st, 2021,
 - Ireland and Luxembourg since January 15th, 2020 until July 11th, 2021,
 - Bulgaria, Norway since January 15th, 2020 until July 21st, 2021,
 - Greece since January 15th, 2020 until July 22nd, 2021,
 - Belgium, France and Switzerland since January 15th, 2020 until July 31st, 2021,
 - Iceland since January 15th, 2020 until August 21st, 2021,

- Portugal since January 15th, 2020 until August 23rd, 2021,
 - the United Kingdom since January 15th, 2020 and while EP 3 594 009 is in force,
 - and Germany since April 16th, 2021 and while EP 3 594 009 is in force;
- II. to order the Defendants to pay to the Claimant EUR 200,000 (two hundred thousand Euros) in compensation for the moral prejudice suffered;
- III. to order the Defendants to inform the Claimant to the extent of which they have committed the infringing acts of EP 3 594 009 referred to in C.I. stating
1. the origin and distribution channels;
 2. the quantities produced, manufactured, delivered, received or ordered, as well as the price obtained;
- in particular
- manufacturing quantities and times;
 - the individual deliveries, broken down by delivery quantities, times and prices and the respective product designations as well as the names and addresses of the customers;
 - the turnover, the gross margin and the contribution margin generated by the Defendants with the sale of these products;
 - the individual offers, broken down by quantities, times and prices and product designations as well as the names and addresses of the commercial offer recipients;
 - the advertising carried out, broken down by advertising media, their circulation, distribution period and distribution area, and in the case of Internet advertising, the domain, access figures and placement periods of each campaign;
 - the identity of all third parties involved in the distribution, in particular the names and addresses of the commercial buyers and the sales outlets for which the products were intended;
- whereby details requiring confidentiality may, at the discretion of the court, be redacted or made available only to certain persons;
3. within twenty-one days of the date of service of the decision, supported by evidence verified by an independent accountant, under a penalty of EUR 10,000 per delay day from the month following the date of service of the judgment to be handed down;
- IV. to order the Defendants to pay the Claimant interim awards on damages in the amount of EUR 10,000,000 (ten million Euros) as provided under Rule 119 of the Rules of Procedure pending the communication of the requested accounting information, the Claimant retaining the right to bring an action at a later date for the determination of the damages;

- V. to order the Defendants to destroy at their own expense the products, material and/or implements referred to under A.II. which are in their possession and/or ownership within Germany and the United Kingdom, under supervision of a court bailiff, and to provide the Claimant with a report certified by the bailiff confirming the specific products, their number, how, by whom and when the destruction was carried out;
- VI. to order the Defendants to recall the products referred to under A.III. which have been placed on the market from the channels of commerce, with reference to the infringement determined by a court of law (judgement of [...] on [...]) and with the binding promise to reimburse any fees and to assume any necessary packaging and transport costs as well as customs and storage costs associated with the return and to take back the products, whereby an exhaustive list of all recipients is to be provided to the Claimant;
- VII. to order the Defendants to definitively remove the products referred to under A.III. from the channels of commerce, specifically taking the following measures at their own expense:
 - 1. the Defendants shall take all possible and reasonable measures to identify the locations and third parties who are owners commercial customers of the products referred to under A.II.;
 - 2. to the extent that the Defendants themselves have legal or actual control over the products referred to under A.III., such measures as are legally permissible and reasonable shall be taken to ensure that such products come into and remain in the Defendants' immediate possession;
 - 3. to the extent that the Defendants do not have legal or actual control over the products referred to under A.II., they shall instruct third parties who are commercial customers, with regard to the products named in A.II. to cancel all orders relating to these products and provide the court and the claimant with written proof of the measure taken within 30 days of service of the notification within the meaning of R. 118 (8) sentence 1 RoP and, if applicable, a certified translation;
- VIII. to order for each Defendant
 - 1. to place on its website, within seven days from the date of service of the decision and for a continuous period of at least two weeks, the following statement (or a statement as the Court deems appropriate), to be displayed in a manner visible directly on the website's home- or landing page, in a text box separate from the website's other content having a white background and black letters, set in typeface Arial and having at least 12pt size, and to provide the claimant with evidence as to when and how the statement was placed:

“On [date of decision], the Unified Patent Court has ruled that Kodak GmbH, Kodak Graphic Communications GmbH and Kodak Holding GmbH infringed European Patent No. 3 594 009 held by Fujifilm Corporation, by manufacturing, selling, and offering for sale SONORA X, SONORA XTRA-2, and SONORA XTRA-3 printing plate precursors. As a consequence, Kodak GmbH, Kodak Graphic Communications GmbH, Kodak Holding GmbH were ordered to terminate all commercial activities related to these products in Germany and the United Kingdom immediately. We apologize for any inconvenience this may cause and will be reaching out directly to clients to offer an appropriate solution.”

2. to send to its clients, within seven days from the date of service of the decision, in the national language of the client, a letter with the following contents only (or such contents as the Court deems appropriate) and without caption, and to provide the claimant with copies of all letters sent:

"Kodak GmbH, Kodak Graphic Communications GmbH and Kodak Holding GmbH have infringed Fujifilm's European Patent No. 3 594 009 with its products SONORA X, SONORA XTRA-2 and SONORA XTRA-3. Those products may no longer be offered for sale or sold in Germany and the United Kingdom, either on- or offline. We hereby request you to remove (images of) these products from your websites, from your shops and from other promotional and sales channels, to cease all sales and offers for sale of these products, and to return to us these products within seven days from the date of this letter. We will refund the purchase price and all costs associated with the return of the products to you."

- IX. in any case, to order the Defendants to pay the Claimant the sum of EUR 300,000 as an interim award on the legal costs and other expenses as provided under Article 69 of the Unified Patent Court Agreement and Rule 118(5), 119 and 150(2) of the Rules of Procedure.

Insofar as the Court considers the evidence submitted by the Defendants insufficient to hold Defendant 2) liable for infringement of the patent in suit in the UK, to order by way of a further subsidiary request the Defendant 2) to produce,

- I. the Manufacturing Toll Agreement of 1 January 2017 between Defendant 2) and Kodak Ltd. referred to on page 10 of Exhibit K 3;
- II. only if this does not become clear from the Toll Manufacturing Agreement, other documents, including purchase orders, invoices, agreements, or terms and conditions, that clarify when title to the SONORA plates manufactured by Defendant 2) intended for the UK market passes, in the case of (a) supplies to Kodak's UK entity and in the case of (b) direct shipments to distributors such as Intuprint.

The Defendants request,

- I. the dismissal of the action;
- II. the reimbursement of the Defendants' costs of the infringement action provisionally;

In the alternative:

- III. to make the enforcement of the decision subject to the prior provision of security by the Claimant of at least EUR [...] (Rules 352.1, 354.2 RoP), which can be provided by a written, irrevocable, unconditional and unlimited guarantee from a credit institution authorized to do business in the territory of a member state of the UPC;
- IV. to permit the Defendants to avert enforcement of the decision by providing security, which can be made by way of a written, irrevocable, unconditional, and indefinite guarantee of a financial institution in the territory of a member state of the UPC authorized to conduct business in the Federal Republic of Germany, irrespective of a provision of security by Claimant (Rule 9.1 RoP).

As a further request, the Claimant requests

- I. to dismiss the Defendants' request for an enforcement security;
- II. if the Court were to consider an enforcement security at all, to limit it to much lower proportions at the discretion of the Court.

Counterclaim for revocation:

The Defendants request,

- I. the revocation of the European patent EP 3 594 009 B1 in its entirety with effect in the territory of all Contracting Member States in which the patent has effect (Rule 25 RoP);
- II. without prejudice to their primary position that the Court either cannot or should not determine the claim so far as it concerns the United Kingdom for the reasons set out in their Preliminary Objections, and on the basis that if the court were to assume jurisdiction for the EP 3 594 009 B1 (UK) it should only do so if the Claimant first undertakes to consent before the UK Court and Intellectual Property Office to revocation or restriction of the EP 3 594 009 B1 (UK) in line with any decision handed down by this Court, a decision that the EP 3 594 009 B1 (UK) is also invalid in its entirety [or in part]; and
- III. reimbursement of the Defendants' costs of the counterclaim provisionally (Rule 150.2 RoP).

The Claimant requests,

- I. to dismiss the counterclaim for revocation of EP 3 594 009 B1 in its entirety;
- II. as a subsidiary request, insofar as the Court considers the claims of EP 3 594 009 B1 to be insufficiently described as contended in the counterclaim for revocation,
 1. to hold that the Application to Amend EP 3 594 009 B1 submitted as Auxiliary Request 1 is admissible;
 2. to hold that the Claimant has demonstrated that claims 1, 2 and 3 of Auxiliary Request 1 have been and are infringed by the Defendants (Rule 30.1(c) RoP) or, alternatively, that the contested SONORA X and/or SONORA XTRA-2 and/or SONORA XTRA-3 printing plates are demonstrated to reproduce or implement claims No. 1, 2 and 3 of Auxiliary Request 1;
 3. to consequently order the injunctive measures requested under request A or request B of the Statement of Claim;
 4. to consequently order the corrective measures requested under request C of the Statement of Claim;
- III. as a further subsidiary request, if the Court considers the claims of EP 3 594 009 B1 to be anticipated by any of the prior art documents invoked in the counterclaim for revocation under Articles 54(2) or 54(3) EPC,
 1. to hold that the Application to Amend EP 3 594 009 B1 submitted as Auxiliary Request 2 is admissible;
 2. to hold that the Claimant has demonstrated that claims 1, 2 and 3 of Auxiliary Request 2 have been and are infringed by the Defendants (Rule 30.1(c) RoP) or, alternatively, that the contested SONORA X and/or SONORA XTRA-2 and/or SONORA XTRA-3 printing

- plates are demonstrated to reproduce or implement claims 1, 2 and 3 of Auxiliary Request 2;
3. to consequently order the injunctive measures requested under request A or request B of the Statement of Claim;
 4. to consequently order the corrective measures requested under request C of the Statement of Claim;
- IV. as a further subsidiary request, if the Court considers claim 1 of EP 3 594 009 B1 to be both insufficiently described and anticipated by any of the prior art documents invoked in the counterclaim for revocation under Articles 54(2) or 54(3) EPC,
- I. to hold that the Application to Amend European patent No. 3 594 009 B1 submitted as Auxiliary Request 3 is admissible;
 - II. to hold that the Claimant has demonstrated that claims 1, 2 and 3 of Auxiliary Request 3 have been and are infringed by the Defendants (Rule 30.1(c) RoP) or, alternatively, that the contested SONORA X and/or SONORA XTRA-2 and/or SONORA XTRA-3 printing plates are demonstrated to reproduce or implement claims No. 1, 2 and 3 of Auxiliary Request 3;
 - III. to consequently order the injunctive measures requested under request A OR request B of the Statement of Claim;
 - IV. to consequently order the corrective measures requested under request C of the Statement of Claim.

POINTS AT ISSUE:

A. Preliminary Objection

I. The Defendants' arguments

According to the Defendants, the Claimant has chosen to bring this action before the UPC relying on Art. 33(1)b UPCA (place of domicile) for competence against all three German Defendants. The Defendants do not object that in relation to the German designation of the patent in suit.

However, the Defendants argue that, by raising the defence of invalidity of the patent in suit, the UPC lacks jurisdiction over the European Patent insofar as it relates to the United Kingdom. Pursuant to Art. 34 UPCA, Germany is the only Contracting Member State for which the patent in suit still has effect. The United Kingdom is not a Contracting Member State of the UPC. On this basis alone, it follows that the territorial scope of a decision of the UPC in this case cannot be extended to the United Kingdom. Having regard to Art. 71b(2) of Regulation (EU) No 1215/2012 on jurisdiction and the recognition and enforcement of judgements in civil and commercial matters (recast) Brussels Ibis (hereinafter: Brussels Ibis Regulation), the UPC does not have jurisdiction over the Defendants as provided for under Art. 1(1) of Brussels Ibis Regulation. Under Art. 71a Brussels Ibis Regulation, the UPC has jurisdiction only "pursuant to the instrument establishing it" (namely the UPCA); under Art. 71b, the jurisdiction of the UPC is limited to matters "governed by that instrument". And the international jurisdiction and competence of the UPC is limited to the territory of those Contracting Member States for which the European patent in question has effect according to Art. 34 UPCA.

That the international jurisdiction and competence of the UPC is limited to the territory of those Contracting Member States for which the European patent has effect is supported elsewhere in the UPCA. Looking internally, Art. 3 UPCA is highly relevant, limiting the scope of the UPCA to European patent applications, European patents, European patents with unitary effect and supplementary protection certificates. This excludes jurisdiction over US and other non-European patents without necessitating jurisdiction over non-UPC designations of European patents.

On the international side, the Claimant relies heavily on Art. 24 UPCA. The Defendants argue that this provision rather supports their position. According to them, Art. 24(1)e) UPCA states that the UPC shall base its decisions on national law, and Art. 24(2) UPCA explains how the applicable law is to be determined (as the Claimant says, including the law of non-Contracting Member States). However, Art. 24(3) UPCA goes on to identify the Articles under which the law of non-Contracting Member States shall apply, and notably this excludes Art. 62 UPCA (on provisional and protective measures), Art. 63 UPCA (on permanent injunctions) and Art. 65 UPCA (on validity of a patent). Art. 68 UPCA is included, but this can be understood as permitting damages occurring outside the Contracting Member States but arising from infringement taking place within the territory of the Contracting Member States. The cross-reference would be a very peculiar way to give the UPC (partial) exorbitant jurisdiction. Equally, the exclusion of Art. 62, 63 and 65 UPCA makes little sense if the UPC was intended to be deciding on European patents outside the UPC territory.

Furthermore, under Art. 24(4) Brussels Ibis Regulation, the UPC would not be able to render a decision which would result in the revocation of the UK part of the European Patent.

The Defendants put forward that jurisdictional limitations are for good policy reasons. There are a number of other general principles of private international law, not least comity, respect for the sovereignty of foreign states, territoriality and reciprocity, which mean that patent litigation must be brought in the territory where the patent is registered, in particular but not only where validity is at issue, in the absence of an agreement on a common court which allows litigation to cover the territories participating in that common court.

The Defendants point out that the Claimant also seeks damages and relief from 15 January 2020, when the United Kingdom was a Member State of the European Union. Moreover, Brussels Ibis Regulation and its Art. 24(4) still applied to the United Kingdom until the end of 2020. The Claimant cannot seek relief for that period, during which the courts of the United Kingdom had exclusive jurisdiction.

II. The Claimant's arguments

The Claimant argues that the Court's jurisdiction covers not only infringing acts of the Defendants in the existing UPC Member States, but also in the United Kingdom.

Art. 34 UPCA complements Art. 3(2) of Regulation (EU) 1257/2012, which lays down for European patents with unitary effect that they shall "provide uniform protection and shall have equal effect in all the participating Member States". As "traditional" European patents do not have unitary effect, Art. 34 UPCA is necessary to ensure that decisions of the Court also apply uniformly to these patents in all Contracting Member States. Art. 34 UPCA is unconcerned with the international jurisdiction of the Court. As the Defendants themselves point out, that issue is governed by Art. 31 UPCA, which in turn refers to Brussels Ibis Regulation. In the present case, the Court has jurisdiction to hear the claims against all Defendants on the basis of Art. 4 Brussels Ibis Regulation, since they are all domiciled in Germany.

The Court was clearly intended to have jurisdiction (also) over non-Contracting Member States, at least in some cases. This follows from Art. 71b Brussels Ibis Regulation, which already lists multiple scenarios in which the effect of the Court's decisions will obviously extend beyond the territories of the Contracting Member States. It also follows from the final amendments to Rule 5 of the UPC's Rules of Procedure on the application to opt out. Further support that the Court's decisions were intended to extend to non-Contracting Member States can be found in Art. 24 UPCA. This provision lists the sources of law on which the Court may base its decision. Art. 24(2) UPCA provides for situations in which the Court will apply the national law of non-Contracting Member States.

There is nothing in Art. 24(4) Brussels Ibis Regulation or in the ECJ's decision in *GAT v LUK* to suggest that exclusive jurisdiction extends to the infringement claim as well.

As the wording of Art. 24(4) Brussels Ibis Regulation shows, this provision applies only to other EU Member States. For non-EU Member States, such as the UK, the exception of Art. 24(4) Brussels Ibis Regulation to the general rule that the court of the defendant's country of origin has international jurisdiction (Art. 4) does not *apply per se*. This has also been expressly confirmed by the ECJ in *IRnova*:

"In the present case, as has already been pointed out in paragraph 26 of the present judgment, the patent applications at issue in the main proceedings were deposited and the patents concerned were granted not in a Member State, but in third countries, namely the United States and China. As Art. 24(4) of the Brussels Ia Regulation does not envisage that situation, however, that provision cannot be regarded as applicable to the main proceedings."

The Claimant may claim damages for infringement of the patent in the UK, including for the period during which the UK was still an EU Member State. Art. 67 of the UK-EU Withdrawal Agreement provides that the provisions of the Brussels Ibis Regulation "*shall apply*" to all legal proceedings instituted before the end of the transition period, which ended on 31 December 2020 (Art. 126 Withdrawal Agreement). The intention was that the courts should retain jurisdiction in such proceedings on the basis of the Brussels Ibis Regulation, i.e. they did not suddenly lose jurisdiction at the end of the transitional period, and in this sense the Regulation continues to apply even now, insofar as such proceedings are still pending (the so-called *perpetuatio fori*-principle). Conversely, at the end of the transition period, the Brussels Ibis Regulation ceased to govern jurisdiction in legal proceedings in Member States' courts in cases involving the UK. The negotiating parties to the EU-UK Withdrawal Agreement therefore opted to make the applicability of the Brussels Ibis Regulation regime dependent on the time proceedings are initiated, as opposed to a solution whereby the applicability of the Brussels Ibis Regulation regime shifted over time within the same proceedings. As the current proceedings were initiated after the end of the transitional period, the Brussels Ibis Regulation regime is not applicable to claims relating to the UK, even if those claims relate to past infringements.

In the alternative, and only to the extent that the Court declines jurisdiction to grant a permanent injunction in respect of the UK, the Claimant has requested that the Court grants at least a provisional injunction in respect of the UK.

According to the Claimant, an alternative legal basis for the Court to grant the requested provisional relief is R. 118.2 RoP. This rule allows the Court to grant relief subject to the validity of the enforced patent being confirmed by the European Patent Office in opposition proceedings. This rule could be applied analogously in the present case, where relief could be granted subject to the UK courts confirming the validity of the patent in potential revocation proceedings.

Finally, the Claimant states that Defendant 2) – itself controlling the Defendant 1) and being wholly owned by the Defendant 3) – has been operating as a contract manufacturer for Kodak Ltd, a UK-based entity, since 1 January 2017.

B. Infringement:

According to the Defendants, the complaint must be dismissed as the Defendants have acquired a prior use right in Germany under German law according to Sec. 12 of the German Patent Act (PatG) in conjunction with Art. 28 UPCA.

Defendants allege that they had already conceived the printing plate precursor of “SONORA X” and made preparations for its use prior to the priority date.

For further details, reference is made to the Parties’ written pleadings.

C. Counterclaim for revocation

The Defendants base their counterclaim for revocation on the following grounds of Art. 138 EPC in conjunction with Art. 65(2) UPCA:

- insufficient disclosure (Art. 138(1)b EPC);
- lack of novelty (Art. 138(1)a) in conjunction with Art. 54(1), (2) and (3) EPC); and
- lack of inventive step (Art. 138(1)a) in conjunction with Art. 56 EPC).

I. Claims as granted

According to the Defendants, the subject-matter of claim 1 of the patent in suit is not sufficiently disclosed for it to be performed over the whole claimed range (Art. 138(1)b EPC). The Defendants point out that the patent in suit only contains Examples wherein both an electron-donating and an electron-accepting initiator are present and wherein the HOMO difference is the difference between the electron-donating initiator and the compound of Formula 1 (IR-absorbent). The patent in suit does not describe a working example where only one of the electron-donating and electron-accepting polymerization initiators is present or where only the electron-accepting initiator satisfies the required HOMO difference of feature 1.5.2. The Defendants argue that both initiator types are required to perform the invention, because the IR-absorbent must first transfer an electron to the electron-accepting polymerization initiator. Then, the IR-absorbent would be in a state which allows acceptance of an electron from the electron-donating initiator. The HOMO difference would only be relevant for said second reaction, as only said second reaction involves the transfer of an electron from a fully occupied HOMO to a partially occupied HOMO. The presence of an electron-accepting initiator would also be essential for color formation via reaction with the acid color former. Therefore, the subject-matter of claim 1 could not be put into practice for those embodiments wherein the polymerization initiator is only an electron-donating initiator or only an electron-accepting initiator, and for those embodiments wherein only the electron-accepting initiator satisfies the required HOMO difference of feature 1.5.2.

The Claimant defends the patent in suit against this insufficiency attack by arguing that the skilled person would “exclude any embodiment that is not consistent with the teaching of the specification” and that sufficiency would be given if the skilled person can infer from the entire disclosure what would work and would not work (citing T 521/12 and T 2773/18). The Claimant argues that the Defendants’ objection for lack of sufficiency is not based on lack of technical guidance how to perform the invention, but rather on the knowledge that the “hypothetical” (terminology used by

the Claimant) embodiments [of just one kind of initiator and of the HOMO difference being calculated with the electron-accepting initiator instead of the electron-donating initiator] would be technically implausible. According to the Claimant, such “obviously non-working embodiments” would be ruled out by the skilled person and could therefore not jeopardize sufficiency.

The Claimant moreover relies on its narrowing construction of feature 1.5.2. as only pertaining to an electron-donating initiator. In addition, the Claimant cites EPO case law (T 515/00, T 593/09, T 1018/05) wherein claim construction led to the exclusion of irreproducible embodiments.

Finally, the Claimant also defends the granted claims against the insufficiency objection by asking how a patent could unduly confer protection over insufficiently disclosed subject-matter.

Summarizing, the Defendants argue that claim 1 encompasses embodiments with just one of the initiator types (either electron-donating or electron-accepting), and embodiments wherein the HOMO difference is calculated with an electron-accepting initiator instead of an electron-donating initiator. These embodiments would not be sufficiently disclosed. The Claimant argues that either claim 1 must be construed narrowly, resulting in enablement over the complete, narrowly construed scope, or that claim 1 is not insufficiently disclosed in spite of encompassing non-working embodiments, because such non-working embodiments would be excluded by the skilled person and would therefore not be harmful for sufficiency of disclosure.

II. Auxiliary Request 1

The admissibility of Auxiliary Request 1 is contested by the Defendants. The Defendants invoke R. 30.1, 50.2 RoP, and Art. 24(1)c) UPCA in conjunction with R. 80 EPC. They in particular take the position that the replacement of “is a borate compound” with “comprises a borate compound” in amended dependent claim 4 broadens the claim as it now allows for additional polymerization initiators in addition to a borate compound. The Defendants therefore see this amendment as constituting a “new” claim that has been added. The Defendants request that this claim is refused as inadmissible because it is not occasioned by an invalidity ground. The Defendants justify their position by relying on case law of the Boards of Appeal (citing T 2029/19 and T 323/05) that amendments to dependent claims are generally inadmissible because they are not occasioned by a ground of opposition (R. 80 EPC). According to the Defendants, this case law must be taken into account as the EPC is the basis for decisions of the UPC pursuant to Art. 24(1)c) UPCA.

Furthermore, the Defendants argue that the amendment of claim 4 violates Art. 123(2) EPC. The amendment would change the meaning of claim 4 (and claim 5 dependent thereon) such that these claims in combination with claim 1 would also encompass embodiments wherein the claimed borate “could be either the electron-donating polymerization initiator, the electron-accepting polymerization initiator, or a different polymerization initiator”, whilst the borate is clearly designated as electron-donating initiator in the original application (par. [0135]).

The Defendants contest the novelty of the subject-matter of Auxiliary Request 1 (and the Main Request) over each of the cited documents FBD-T20 (EP 3 632 696 A1), FBD-T21 (EP 3 632 694 A1) and FBD-T22 (EP 3 640 039 A1), which are prior art under Art. 54(3) EPC, and over each of FBD-T19 (EP 2 839 968 A1) and FBD-T23 (US 2004/0202957), which were published before the priority date of the patent-in-suit and are therefore prior art under Art. 54(2) EPC. None of these documents discloses HOMO values of the compounds described therein. In the view of the Defendants, the claimed HOMO difference is however implicitly disclosed by each of these documents; this is contested by the Claimant. The Parties in particular disagree on whether a specific HOMO value must be considered as an implicit property of a chemical compound. This is contested by the Claimant

because such value could not be inferred by the skilled person from the chemical structure but would have to be calculated. Different calculation methods would lead to different values for the same compound. Moreover, the skilled person would not have been induced to calculate a HOMO value or HOMO difference by the prior art documents.

The Claimant also defends the patent against the novelty attack by arguing that the collocation of all features of claim 1 would require an unguided selection from different parts of the cited prior art documents, and that the cited prior art documents would not address the same technical problem or achieve the same technical effect as the patent in suit. Finally, the compositions described in the prior art documents would contain additional mandatory ingredients; therefore, the composition of claim 1, which lacks these additional ingredients, would not be directly and unambiguously be disclosed by the cited documents.

III. Auxiliary Request 2

The admissibility of Auxiliary Request 2 is contested by the Defendants, invoking R. 30.1 RoP.

The Defendants argue that the amendment of claim 1 of Auxiliary Request 2 violates Art. 123(2) EPC. The Parties disagree on whether the feature added to claim 1 finds basis in the application as originally filed, as required by Art. 123(2) EPC. The Claimant relies on paragraphs [0141], [0144] and [0155] when combined with paragraph [0157] of the original application as basis of the amendments performed in claim 1 of Auxiliary Request 2. This alleged basis is contested by the Defendants. The Defendants bring forward three attacks under Art. 123(2) EPC. The first of these attacks depends on a specific construction of feature 1.5.2. in amended claim 1, the second of these attacks depends on the understanding of the cited paragraphs of the original description, and the third of these attacks uses the so-called “selection from two lists” jurisdiction developed by the Boards of Appeal of the EPO.

With regard to the first of these attacks, the Defendants argue that amended claim 1 of Auxiliary Request 2 requires that the “polymerization initiator” contains “two or more kinds of an electron-accepting initiator” which are diphenyliodonium salt “compounds”. Because of this wording (“compounds”), the reference of feature 1.5.2. to “at least one compound of the polymerization initiator” would evidently be understood to pertain to at least one of said two or more “compounds”. The Claimant rebuts this argument by pointing out that claim 1 of Auxiliary Request 2 deliberately uses the word “comprises” which would allow that other initiator compounds (specifically: an electron-donating initiator) may be present apart from the electron-accepting initiators. Therefore, there would be no change in the meaning of feature 1.5.2. due to the amendment in claim 1.

With regard to the second of these attacks, the Defendants argue that the “two or more kinds of the electron-accepting initiator” to which par. [0144] refers would pertain to different substance “classes” (a) to (k) which are listed in the subsequent paragraphs [0145] to [0154], not to compounds belonging to the same class. Thus, a combination of two compounds belonging to the same class (k) (which encompasses diphenyliodonium salts) would not be originally disclosed by the passages of the original application invoked by the Claimant. The Claimant rebuts this argumentation by stating that the word “kind” would not necessarily denote different substance classes of electron-accepting polymerization initiators. In the opinion of the Claimant, “two kinds” are merely “two compounds that are different from each other”. Two or more kinds of electron-accepting initiators could therefore be selected from all individual compounds that belong to one of the classes (a) to (k), and could therefore be two compounds classified as belonging to the same class (k).

An additional attack under Art. 123(2) EPC concerns claim 4 of Auxiliary Request 2. Unlike claim 4 in Auxiliary Request 1, this claim remained unamended and requires that the polymerization initiator of claim 1 “is” a borate compound. When reading this wording together with the wording of amended claim 1, wherein the only specified polymerization initiators are diphenyliodonium salt compounds which must be electron-accepting initiators, this would result in borate compounds (which are electron-donating, par. [0137] of the patent in suit) that are “electron-accepting” and are diphenyliodonium salts. This would be a contradiction in itself and would not be disclosed in the original application.

In addition, in the view of the Defendants the subject-matter of claim 1 of Auxiliary Request 2 contravenes Art. 83 EPC for the same reasons as the Main Request. This is contested by the Claimant with the same arguments as for the Main Request.

IV. Auxiliary Request 3

The admissibility of Auxiliary Request 3 is contested by the Defendants, invoking R. 30.1 RoP, R. 50.2 RoP and Art. 24(1)c) UPCA in conjunction with the EPO jurisdiction on R. 80 EPC for the same reasons as for Auxiliary Request 1.

Compliance of the amendments in claim 1 of Auxiliary Request 3 with Art. 123(2) EPC is contested by the Defendants for the same reasons as for Auxiliary Request 2. Moreover, the same objection regarding amended claim 4 is raised as for unamended claim 4 in Auxiliary Request 2, even though claim 4 in Auxiliary Request 3 has been amended from “is” to “comprises”. In response, the Claimant relies on the same arguments as presented by them in the context of Auxiliary Request 2.

GROUNDS FOR THE DECISION:

The counterclaim for revocation is admissible and well-founded.

The infringement action is also admissible. However, due to the invalidity of the German part of the patent in suit, the infringement action is unfounded as far as Germany is concerned. As far as the United Kingdom is concerned, the infringement action also fails.

A. Admissibility of the infringement action and the counterclaim for revocation

Both the infringement action and the counterclaim for revocation are admissible.

I.

As far as Germany is concerned, the Defendants did not raise a preliminary objection in this respect. According to R. 19.7 RoP, this shall be treated as a submission to the jurisdiction and competence of the Court and the competence of the Division chosen by the Claimant, namely the Düsseldorf Local Division.

II.

With regard to the United Kingdom, the Defendants have lodged a preliminary objection. This preliminary objection is admissible but unfounded.

1.

The preliminary objection is admissible as the requirements particularly of R. 19.1 RoP have been met. It was lodged within the time limit of one month of service of the Statement of Claim and concerns the jurisdiction and competence of the Court (R. 19.1 a) RoP).

Apart from that, the international jurisdiction of the Düsseldorf Local Division arises in any case from Art. 4(1) in conjunction with Art. 71b(1) of the Brussels Ibis Regulation. The Düsseldorf Local Division is furthermore competent according to Art. 31, 32(1)a), 33(1)a) UPCA.

2.

The preliminary objection is unfounded. Since the revocation action seeks only the revocation of the patent in suit in the territory of the Contracting Member States, the question whether the UPC has jurisdiction for revocation actions concerning the validity of third-state-patents does not arise. The Court also has competence to hear the case with respect to the infringement action for the United Kingdom.

a)

The Court understands that the Defendants are seeking revocation for the territory of all the Contracting Member States in which the patent is in force, which at present is only Germany. Since revocation is not sought for the United Kingdom, there is no situation in which the Court has to decide whether it has jurisdiction to revoke the UK-part of the patent in suit. The Defendants' additional auxiliary request (consent of the Claimant to revoke etc. before a UK Court or the UK IPO) has no legal basis, at least in the counterclaim.

The Unified Patent Court (UPC) has international jurisdiction for the counterclaim for revocation. Pursuant to Art. 32(1) UPCA, the UPC has exclusive jurisdiction for counterclaims for revocation of (European) patents. Since there is currently no opt-out (Art. 83(3) UPCA) from the exclusive jurisdiction of the UPC with respect to the patent in suit, the UPC – as a court common to the Member States of the UPCA – has international jurisdiction for the present counterclaim for revocation pursuant to Art. 24(4), 71a(2)a), 71b(1) of the Brussels Ibis Regulation.

In view of the scope of the revocation action, the outcome of the pending case BSH Hausgeräte GmbH v Electrolux AB (C-339/22) is not decisive for the present case as regards to the third question referred to the ECJ, which was the reason for the referral of the case to the Grand Chamber and the reopening of the oral hearing.

b)

The Court still has to decide whether it has jurisdiction to decide the infringement action in respect of the UK-part of the patent in suit, which it answers in favour of the Claimant. In this context, it should be clarified that the question of jurisdiction is to be separated from the question of which substantive law is applicable.

aa)

Art. 24(4) Brussels Ibis Regulation codifies the case law of the ECJ in its decision GAT v LUK (ECJ, 17 July 2006 – C-4/03), which grants exclusive jurisdiction to the court of the Member State where the relevant national part of the patent is registered. This provision does not apply to the question of which court has jurisdiction in infringement proceedings (see GAT v LUK, cf. 16: “If, on the other hand, the dispute does not concern the validity of the patent or the existence of the deposit or registration and these matters are not disputed by the parties, the dispute will not be covered by Article 16(4) of the Convention (Duijnstee, paragraphs 25 and 26)”).

bb)

Pursuant to Art. 4(1) Brussels Ibis Regulation, persons domiciled in a Member State, whatever their nationality, shall be sued in the courts of that Member State. All the Defendants are domiciled in Germany.

According to the decision *Owusu* (ECJ, 1.3.2005 – C-281/02, cf. 34 f.), the ECJ notes with respect to Art. 4(1)(2) Brussels Ibis Regulation (former Art. 2 of the Brussels Convention) that the uniform rules of jurisdiction contained in the Brussels Convention are *not intended* to apply only to situations in which there is a real and sufficient link with the functioning of the internal market, which by definition involves a number of Member States. Art. 2 of the Brussels Convention applies to circumstances involving relations between the courts of a single Contracting State and those of a *non-Contracting* State, not the relations between the courts of a number of Contracting States. This means that the ECJ has accepted that the international element required for the application of the Brussels Ibis Regulation *may not only be intra-EU* (see Kalden, GRUR Patent 2023, 178, 182 cf. 48). This understanding is also supported by the Advocate General’s opinion of 22 February 2023, which describes the jurisdiction of the courts of the Member State in which the defendant is domiciled under Art. 4(1) Brussels Ibis Regulation as *universal*. It may therefore extend to the infringement of the European patent committed in all the States for which it has been granted. In summary, that provision enables the patent holder to bring all his or her infringement claims before a single court and to obtain a comprehensive relief from a single forum (ECJ, 1.3.2005 – C-281/02, cf. 31). Later on, the Advocate General points out that infringement proceedings are governed by the general rules of the Brussels Ibis Regulation. Jurisdiction is therefore predictable and certain for the patent holder. If he or she brings proceedings outside the State of registration and the alleged infringer raises an invalidity defence, the courts seized will not lose the competence to hear and determine the action. In the case of a ‘multistate’ infringement of a European patent, that reading [of the *GAT v. LUK* decision] allows partial consolidation of the claims before a single forum (ECJ, 17 July 2006 – C-4/03, cf. 77).

cc)

The Court holds that this result is not altered by Art. 71b Brussels Ibis Regulation or Art. 34 UPCA.

(1)

Prior to the enactment of the UPCA, the rules on international jurisdiction within the EU were unified by Brussels Ibis Regulation. Therefore, Art. 31 UPCA merely stipulates that the international jurisdiction of the UPC is determined in accordance with Brussels Ibis Regulation (CD Paris, Order of 2 May 2024, UPC_CFI_484/2023, cf. 32). Art. 71 a-d Brussels Ibis Regulation govern this determination by incorporating the new common court into the existing Brussels Ibis Regulation System. Art. 71a Brussels Ibis Regulation governs that the UPC, as a common court, shall be deemed to be a court of a Member State. Art. 71b(1) Brussels Ibis Regulation stipulates that the UPC has jurisdiction where, under Brussels Ibis Regulation, the national court of a Contracting Member State party would have jurisdiction. This means that, in relation to claims against defendants domiciled in a Member State, all the bases for jurisdiction contained in Brussels Ibis Regulation also apply to the UPC and the same is true for the applicable case law of the ECJ (see Kalden, GRUR Patent 2023, 178, 182 cf. 48).

Art. 71b(2)(3) Brussels Ibis Regulation governs certain constellations in which the defendant is not domiciled in a Member State, so that only the scope of Art. 71b(1) Brussels Ibis Regulation is of interest in the case at hand. Contrary to the Defendants’ view, the phrase „matter governed by that instrument“ is not to be read as limiting to the territorial scope of the Contracting Member States, but only as limiting the legal matters transferred by the UPCA from the national courts of the Member States to the UPC. Another argument in favour of this understanding is that Art. 71b(1) Brussels Ibis Regulation recognises the jurisdiction of the UPC under EU law as established by the transfer of the Contracting Member States and limits the effect of the transfer so that it applies only to the extent that the transferring Contracting Member State would have had jurisdiction under the Brussels Ibis Regulation (see Grabinski/W. Tilmann, Einheitspatent, EPGÜ Art.

31, cf. 15). Under the Brussels Ibis Regulation, the transferring Contracting Member State does indeed have jurisdiction over third state patent infringement actions in accordance with the case law of the ECJ, as shown above. The jurisdiction of the UPC is therefore not more limited than that of a national patent infringement court, as not all EU Member States have become Members of the UPCA.

(2)

Art. 34 UPCA does not deal with the international jurisdiction of the court in the first place – which is dealt with in Art. 31 UPCA.

Art. 34 UPCA covers the territorial scope of the Court's decision within the territory of the Contracting Member States, but does not exclude decisions having effect beyond the territory of the Contracting Member States. Art. 34 UPCA does not refer to all decisions of the UPC, but only to decisions covering “in the case of a European patent the territory of those Contracting Member States for which the EP has effect”. European patents are not necessarily in force in all Contracting Member States, so that Art. 34 UPCA can also be understood to clarify that, in the case of a European patent, decisions of the UPC normally cover the entire territory of the UPC, only with the exception of the territories of those Contracting Member States where that European patent is not or is no longer in force (see Kalden, GRUR-Patent 2023, 178, 182 cf. 46, 47).

B. Scope of the patent in suit

I.

The patent in suit lies in the technical field of photolithography printing plates for offset printing.

Lithography is a printing method which is based on different interaction properties of water and oil. Printing plates are prepared to have on their surface, on the one hand, hydrophobic areas receptive to oil-based ink and repelling water (image areas) and, on the other hand, hydrophilic sections that are, *vice versa*, receptive to water and repelling oil-based inks (non-image areas). In photolithography, these areas are created by illumination of the plate.

The printing plates are used in offset printing. Offset printing works such that the ink is not transferred directly from the printing plate to the paper, but by means of a so-called offset cylinder. Thus, no more ink is transferred than necessary, the paper is kept dry and high-speed automated operation is possible. Because the image is first transferred or “offset” to the offset cylinder, this method is known as offset printing.

The following figure (mn. 18 of the Statement of Claim) illustrates a typical offset printing press:

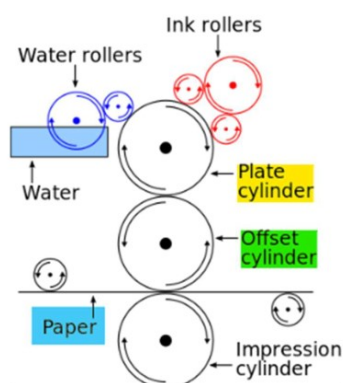


Figure 1: illustration of an offset printing press

After transfer of the image to be printed onto the plate, the plate is mounted on the plate cylinder. Water and ink rollers apply water and ink to the plate. The ink only adheres to the hydrophobic image areas, because the hydrophilic non-image areas are wetted with water and therefore remain inkless. Then, the printing plate transfers the ink/image onto the offset cylinder before the latter prints the image on the paper.

The subject-matter of the patent in suit is a so-called lithographic printing plate precursor for photolithography. Lithographic printing plate precursors were known before the priority date of the patent in suit (patent in suit, par. [0003]; cited prior art). To prepare the printing plate, a printing plate precursor, i.e. a plate not yet ready for printing (lacking the image to be printed), is used. It consists mainly of a hydrophilic support (e.g., an aluminium plate) and a photosensitive layer (an “image recording layer” in the terminology of the patent in suit).

The printing plate precursor is first exposed to light (for example IR laser light), thus creating the image areas. The exposure to light induces a polymerization reaction in the photosensitive layer, thus forming the hydrophobic ink-receptive image areas. Subsequently, a development step is necessary to remove those areas of the plate which were unexposed and therefore did not polymerize. Thereby, the surface of the hydrophilic support is exposed. These areas of the hydrophilic support will later form the non-image areas of the printing plate. See the following illustration (mn. 25 of the Statement of Claim):

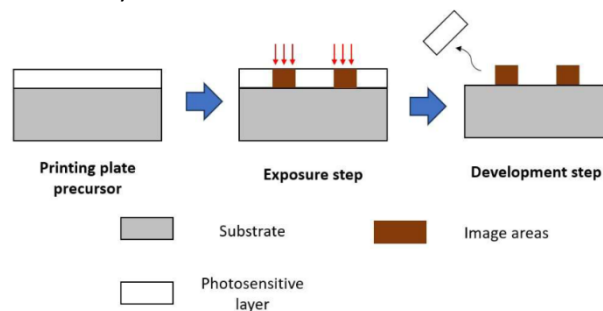


Figure 5: illustration of the preparation of a printing plate from a printing plate precursor

The development can be performed “off-press”, in a separate step prior to mounting the printing plate on the plate cylinder. Such off-press development conventionally requires developer chemicals (for example alkaline developers or organic solvents). A more recent development process is the so-called “on-press development”. Here, the development step is carried out on the press by removing the unexposed non-image areas on the plate using the water and ink applied on the press (par. [0005]). Thus, development is performed as a “pre-printing step” on the printing press by running (waste) paper through the press before starting the actual print.

After development, the printing plate is ready for printing. Water rollers apply water to the plate to wet the non-image areas. Then, an oil-based ink is applied by the ink rollers. The ink is repelled by the water and is thus only disposed on the hydrophobic image areas of the printing plate (mn. 27 of the Statement of Claim):

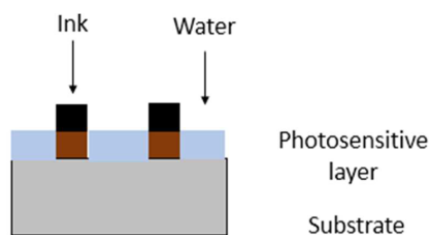


Figure 6: simplified representation of printing plate with ink and water areas during the printing process

The ink is then transferred to the offset cylinder which picks up the ink and transfers it onto the paper.

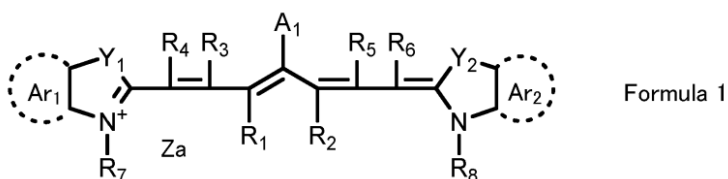
Examples of a conventional lithographic printing plate precursor include a lithographic printing plate precursor described in US 2009/0047599 or US 2013/0052582.

As the patent in suit states, its inventors have made studies, and as a result have found that the lithographic printing plate precursor described in the US patents applications mentioned above has the problems of being insufficient in the printing durability of a lithographic printing plate to be obtained and of being also insufficient in colour development on an exposed portion (par. [0008]).

According to the patent in suit, it is an object to be accomplished by an embodiment of the invention to provide a lithographic printing plate precursor that allows a lithographic printing plate excellent in printing durability to be obtained and that is excellent in colour formability (par. [0009]).

As a solution, the patent in suit provides in claim 1 a lithographic printing plate precursor characterised by the following features:

1. A lithographic printing plate precursor comprising
 - 1.1. an image recording layer on a hydrophilic support,
 - 1.2. characterized in that the image recording layer comprises a polymerization initiator,
 - 1.3. a polymerizable compound,
 - 1.4. an acid color former, and
 - 1.5. an infrared absorbent, whereas
 - 1.5.1. the infrared absorbent comprises a compound represented by the following Formula 1



- 1.5.2. the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one compound of the polymerization initiator is 0.60 eV or less,

1.5.3. wherein

R₁ and R₂ each independently represent a hydrogen atom or an alkyl group, R₁ and R₂ are optionally mutually linked to form a ring,

R₃ to R₆ each independently represent a hydrogen atom or an alkyl group,

R₇ and R₈ each independently represent an alkyl group or an aryl group,

Y₁ and Y₂ each independently represent an oxygen atom, a sulfur atom, -NR₀- or a dialkylmethylene group, R₀ represents a hydrogen atom, an alkyl group or an aryl group,

Ar₁ and Ar₂ each independently represent a group that forms a benzene ring or a naphthalene ring optionally having -X described below,

A₁ represents -NR₉R₁₀, -X₁-L₁, or -X described below, R₉ and R₁₀ each independently represent an alkyl group, an aryl group, an alkoxy carbonyl group, or an arylsulfonyl group,

X₁ represents an oxygen atom or a sulfur atom,

L₁ represents a hydrocarbon group, a heteroaryl group, or a group where a bond with X₁ is to be cleaved by heat or infrared exposure,

Z_a represents a counter ion that neutralizes charge,

1.5.4. and at least one of Ar₁ or Ar₂ has a group represented by the following Formula 2:

-X Formula 2

1.5.5. wherein X represents a halogen atom, -C(=O)-X₂-R₁₁, -C(=O)-NR₁₂R₁₃, -O-C(=O)-R₁₄, -CN, -SO₂NR₁₅R₁₆, or a perfluoroalkyl group, X₂ represents a single bond or an oxygen atom, R₁₁ and R₁₄ each independently represent an alkyl group or an aryl group, and R₁₂, R₁₃, R₁₅ and R₁₆ each independently represent a hydrogen atom, an alkyl group, or an aryl group.

II. Claim Construction

Some of these features require explanation.

1.

The interpretation of the claims is governed by Art. 69 EPC and the Protocol on the Interpretation of Art. 69 EPC in conjunction with Art. 24(1)c) UPCA. The same approach to claim construction is

to be used when assessing infringement and validity; thus, Art. 69 EPC must be the governing principle in claim interpretation also in the context of validity. The understanding of a claim by the skilled person must be consistent for all purposes of the evaluation of infringement and validity (UPC_CoA_335/2023, Order of 26 February 2024, Headnote 2 – NanoString v 10x Genomics).

Art. 69(1) EPC stipulates that the description shall be used to interpret the claims. The Protocol on the Interpretation of Art. 69 EPC, in its Art. 1, sets the general principles for claim interpretation. One of these principles of the Protocol is that Art. 69 EPC should not be taken to mean that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patent proprietor has contemplated. The Protocol, in using the term “extend,” clearly intends to prevent a claim interpretation which extends the subject-matter beyond what is actually claimed, i.e. exceeds the boundaries of the claim. The underlying legal principle is legal certainty.

Art. 69 EPC and its Protocol require that the terms used in the claims must govern claim construction, on their own or in their claimed combination. They are not just the “starting point” for claim construction but the authoritative basis for determining the scope of protection. The description and the drawings are nevertheless always to be considered, even with seemingly clear claims; thus, a patent may be used as its “own lexicon” (UPC_CoA_335/2023, Order of 26 February 2024, Headnote 2 – NanoString v 10x Genomics; UPC_CFI_14/2024 (CD Munich), Decision of 16 July 2024, Headnote 1 – Regeneron v Amgen).

The features of a claim have to be read in combination, as they must always be interpreted in the light of the claims as a whole (UPC_CoA_1/2024, Order of 13 May 2024, mn 29 – VusionGroup v Hanshow). Nothing else must apply to a combination of features resulting from combining a dependent claim with the features of the claims it depends from.

Art. 69 EPC and its Protocol therefore establish a primacy of the claims.

The principle of legal certainty and of primacy of the claims underlying Art. 69 EPC and its Protocol must also be applied when a narrowing claim interpretation is offered by one of the parties. The Protocol on the Interpretation of Art. 69 EPC, when stating that “Art. 69 should not be interpreted as meaning that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims”, is intended to assist a patentee in contending for a broader interpretation of a claim, not for cutting down the scope of a claim. As a rule, if a patentee wishes to argue for a narrow scope of a claim, this should be on the basis of the wording of said claim, and not on the basis of something appearing only in the description, as the patentee has the possibility of restricting the scope of the claim by means of claim amendment.

A narrowing interpretation of the claims which deviates from the broader general understanding of the terms used therein by a skilled person can therefore only be permitted if there are convincing reasons based on the circumstances of the individual case in question. Art. 69 EPC and its Protocol do not provide a justification for excluding what is literally covered by the terms of the claims by a narrowing claim construction based on the description or drawings. The description should not be used to limit the subject-matter of the claimed invention beyond what a skilled person would understand from the wording of the claims.

The normal rule of claim construction is that the terms used in a claim should be given their broadest technically sensible meaning in the context of the claim in which they appear. Thus, the description cannot be relied on to exclude subject-matter which the broadest technically sensible

meaning of the terms used in a claim would include as part of what is claimed (UPC_CoA_335/2023, Order of 26 February 2024, reasons 4.d.cc. – NanoString v 10x Genomics).

The Court therefore takes the position that a narrowing interpretation of the claims (“Auslegung unterhalb des Wortlauts”) based on the description or drawings should generally not be permitted.

2.

The Court agrees with the Parties that the person skilled in the art is a chemist or chemical engineer or an engineer in process engineering with knowledge and several years of experience in the field of offset printing.

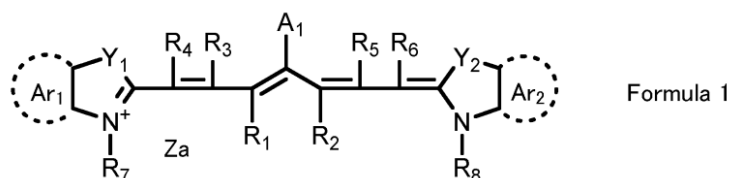
3.

Having said that, the Düsseldorf Local Division construes claim 1 and features 1.2., 1.4. and 1.5.2. in particular (whose construction is disputed between the Parties) as follows:

a)

Claim 1 is directed to a “lithographic printing plate precursor” comprising an “image recording layer”. Therefore, its subject-matter must be suitable for said purposes.

The polymerization initiator (feature 1.2.), the polymerizable compound (feature 1.3.) and the acid color former (feature 1.4.) are not further characterized by their chemical structure in claim 1. The infrared absorbent must comprise a compound having the structure of the following Formula 1.



The structure of Formula 1 is specifically characterized in that it contains a group “-X” on at least one of its rings Ar₁ and Ar₂, wherein X represents a halogen atom, -C(=O)X₂R₁₁, -C(=O)-NR₁₂R₁₃, -OC(=O)-R₁₄, -CN, -SO₂NR₁₅R₁₆, or a perfluoroalkyl group. These groups are so-called electron-withdrawing groups (par. [0030] of the patent in suit); their presence influences the electron distribution across the compound of Formula 1.

Claim 1 reads “wherein the IR-absorbent comprises a compound represented by Formula 1”. In the light of the description, in particular the Examples, it is clear (and not in dispute between the Parties) that the compound represented by Formula 1 is an IR-absorbent as understood by the patent in suit.

Applying the above-mentioned legal considerations, the Court construes features 1.2., 1.4. and 1.5.2. as follows:

b)

Regarding feature 1.2., the Court agrees with the Defendants that the “polymerization initiator” of feature 1.2. can comprise

- (i) only an electron-donating initiator;
- (ii) only an electron-accepting initiator; or
- (iii) a mixture of both, an electron-donating initiator and an electron-accepting initiator.

Feature 1.2. merely pertains to “a” polymerization initiator. Following the above-recited principles of claim construction, the undefined article must be given its broadest technically sensible meaning. In principle, “a/an” could be interpreted to mean either “just one” or “one or more”. Convention of the EPO and national courts (for example, the German Federal Court of Justice (BGH)) generally interprets “a/an” as “one or more”, absent any pointer to the alternative “just one”. In the present case, however, there is not even a need to resort to convention to arrive at the broad construction of “a” as meaning “one or more”. The features of a claim must be read in combination when construing a claim. Feature 1.5.2. of claim 1 itself refers to “at least one compound of the polymerization initiator”. Thus, the claim itself provides the information that “a polymerization initiator” shall mean “at least one compound which is a polymerization initiator” and therefore shall encompass just one polymerization initiator as well as mixtures of more than one polymerization initiators.

Moreover, granted claims 4 and 6 support this interpretation. Granted claim 4 pertains to an embodiment wherein the polymerization initiator of claim 1 is just one compound (“is a borate compound”), and granted claim 6 pertains to an embodiment wherein the polymerization initiator of claim 1 comprises an electron-donating and an electron-accepting initiator. Thus, also according to the dependent claims, “a polymerization initiator” can encompass just one polymerization initiator as well as mixtures of more than one polymerization initiators.

Finally, the description of the patent in suit, which has to be taken into account following Art. 69 EPC and its Protocol, undoubtedly will lead its reader to the conclusion that “a polymerization initiator” in the context of the patent may encompass not only one, but also more than one compounds (e.g., par. [0030], [0134], [0143], [0146], all Examples).

Therefore, feature 1.2. must be construed to pertain to “one or more polymerization initiators”. It undisputedly and undoubtedly encompasses embodiments wherein the “polymerization initiator” is a mixture of an electron-donating and an electron-accepting initiator (embodiment (iii) as listed above).

The remaining question to be answered is whether feature 1.2. additionally encompasses embodiments (i) and (ii) as defined above, i.e. a polymerization initiator which comprises (i) only an electron-donating initiator or (ii) only an electron-accepting initiator. In the opinion of the Court, this must already be held in the affirmative because the term “polymerization initiator” must be given its broadest technically sensible meaning, which is “any kind of polymerization initiator”.

Moreover, the description text explicitly allows for both of these options. Regarding embodiment (i), compare the wording of par. [0134] (Underlining added by the Court):

“[0134] The polymerization initiator preferably contains an electron-donating polymerization initiator.” (No combination with an electron-accepting initiator is required.)

Regarding embodiment (ii), compare the wording of par. [0143] (Underlining added by the Court):

“[0143] The polymerization initiator preferably contains an electron-accepting polymerization initiator, more preferably contains the electron-donating polymerization initiator and an electron-accepting polymerization initiator.”

The “more preferably” embodiment implies that the “preferably” embodiment is lacking the electron-donating initiator.

In addition, the dependent claims also must be taken into account.

Dependent claim 4 requires that “the polymerization initiator is a borate compound”. A borate is an electron-donating initiator; the wording of this claim excludes the additional presence of an electron-accepting initiator. This supports the construction that the polymerization initiator (feature 1.2.) can comprise (i) only an electron-donating initiator.

Dependent claim 6 pertains to embodiment (iii), i.e. the embodiment of feature 1.2. wherein the polymerization initiator comprises both an electron-donating initiator and an electron-accepting initiator. Dependent claims usually provide specific (narrower) embodiments of the subject-matter of the claim to which they refer. Generally, the scope of a patent claim should not be construed such that it is limited by features that are only provided by a subsequent dependent claim. Therefore, by implication, the scope of feature 1.2. in claim 1 must be broader than in claim 6.

As stated in UPC_CFI_14/2023 (CD Munich), Decision of 16 July 2024, Headnote 1 – Regeneron v. Amgen, the patent may be used as its “own lexicon”. The cited paragraphs of the description and dependent claims of this “own lexicon” would in the present case indicate to the reader that embodiments (i) and (ii) are considered by the patent itself as technically feasible and encompassed by the claimed invention.

For these reasons, feature 1.2. is construed by the Court such that the “polymerization initiator” of feature 1.2. comprises

- (i) only an electron-donating initiator;
- (ii) only an electron-accepting initiator; or
- (iii) a mixture of both, an electron-donating initiator and an electron-accepting initiator.

c)

Feature 1.5.2. requires that the difference between the HOMO of the compound represented by Formula 1 (i.e., the IR-absorbent) and the HOMO of “at least one compound of the polymerization initiator” is 0.60 eV or less.

aa)

During exposition to IR light, the IR-absorbent and the polymerization initiator interact with each other in the polymerization reaction which creates the hydrophobic image areas of the printing plate. The IR-absorbent is required for starting the polymerization reaction, as it absorbs IR light and transfers the energy of the absorbed light to the polymerization initiator compounds, splitting them into radicals and thus starting the polymerization reaction. Generally, neither polymerizable compounds nor polymerization initiator compounds are able to absorb a sufficient amount of the radiation energy of IR light to start polymerization. Therefore, an IR-absorbent is required to start the polymerization reaction.

The IR-absorbent absorbs the IR rays of the light used for exposure of the printing plate precursor. This absorption of light has an effect on the energy state of the electrons in the IR-absorbent:

The electrons in chemical atoms and compounds are arranged in orbitals. These orbitals have different energy levels and are generally filled up with the electrons available in a compound by first filling the orbital with the lowest energy level, and then filling up the other orbitals in the order of increasing energy level. The last orbital filled with electrons in this manner is the “Highest Oc-

cupied Molecular Orbital”, abbreviated HOMO. It can contain 1 or 2 electrons (as each orbital can only contain 2 electrons). In a chemical radical, the HOMO generally contains only one electron. This state is energetically unstable, and the chemical radical is therefore highly reactive. Normally, in chemically stable molecules, the HOMO contains two electrons. The latter is the case for an IR-absorbent in its unexcited ground state.

When IR energy is absorbed by an IR-absorbent, one of the electrons in the HOMO can (provided the amount of energy absorbed is high enough) be transferred from the HOMO to the next orbital with an even higher energy level. Said orbital is empty in the molecule’s ground state and is therefore called “Lowest Unoccupied Molecular Orbital”, or LUMO. If the electron is transferred to this LUMO as a reaction to the IR absorption, the IR-absorbent is then in its excited stage. This excited stage is unstable, and the compound will try to escape this excited stage by emptying the singly occupied LUMO again. There are generally two mechanisms for this: dropping the electron back to the HOMO (which is associated with the generation of heat) or transferring the electron to another molecule which serves as a so-called “electron acceptor”.

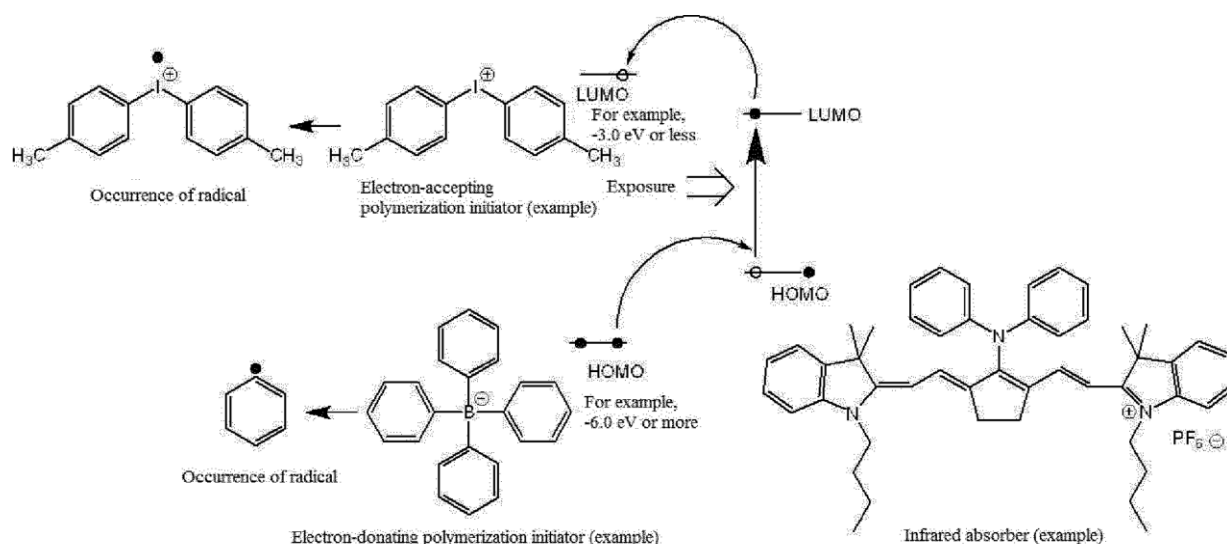
Both of these outcomes of IR light absorption by an IR-absorbent are useful in polymerization reactions requiring radicals created from polymerization initiators: The heat can split the polymerization initiators, thus creating radicals, or the transfer of an electron to an electron-accepting polymerization initiator (more precisely, to its LUMO) can in turn create a radical out of the electron-accepting polymerization initiator. In both cases, the radicals formed from the polymerization initiator can then initiate radical polymerization. When an electron is transferred from the IR-absorbent to an electron-accepting polymerization initiator, the IR-absorbent is oxidized (as it lacks one electron).

Polymerization initiators can be classified as electron-accepting or electron-donating initiators. The former can accept a single electron from an excited IR-absorbent, whilst the latter can donate an electron to an IR-absorbent which has lost an electron.

In the Examples of the patent in suit, the image recording layer contains an IR-absorbent, an electron-accepting initiator and an electron-donating initiator. Both parties offer the same explanation for a mechanism of radical formation that is possible by this combination. After that, the steps are as follows (compare, for example, Statement of Defence, mn. 28 et seq.):

1. The IR-absorbent absorbs illumination energy. This results in the transfer of one electron from its HOMO to the LUMO of the IR-absorbent. The HOMO of the IR-absorbent now lacks an electron.
2. The excited electron is transferred from the LUMO of the IR-absorbent to the LUMO of the electron-accepting polymerization initiator. This allows the electron-accepting initiator to split off a radical, which starts polymerization.
3. The missing electron in the HOMO of the IR-absorbent is provided to said HOMO by the electron-donating initiator. As a result, the electron-donating initiator now lacks an electron, and only one electron remains in its HOMO, rendering the electron-donating initiator unstable. This results in additional radical generation from the electron-donating initiator, contributing to the polymerization.

Compare the Figure shown in EP 3 991 989 A1 (FBD-T18), par. [0455]:



The energy levels of the HOMOs and LUMOs of different molecules are typically different, depending on their chemical structure. The claimed subject-matter is characterized by a specific difference of HOMO energy levels, namely the difference between the HOMO of the compound of Formula 1 (IR-absorbent) and the HOMO of “at least one compound of the polymerization initiator” (feature 1.5.2.). Claim 1 as granted does not specify whether this “at least one compound of the polymerization initiator” is an electron-donating or an electron-accepting polymerization initiator.

bb)

Against this background, the Parties disagree on how a skilled person would understand the requirement that “the difference between the HOMO of the compound represented by Formula 1 and at least one compound of the polymerization initiator is 0.60 eV or less” and in particular on whether the term “at least one compound of the polymerization initiator” in this feature must be understood to pertain exclusively to an electron-donating polymerization initiator (position of the Claimant) or could also mean an electron-accepting polymerization initiator (position of the Defendants).

The Court takes the position that the term “at least one compound of the polymerization initiator” in feature 1.5.2. can mean an electron-accepting initiator as well as an electron-donating initiator.

As indicated above, a generic term in a claim must be given its broadest technically sensible meaning absent any convincing reason to the contrary. The broadest technically sensible meaning of “polymerization initiator” is “any kind of polymerization initiator” (see the construction of feature 1.2.). Therefore, the polymerization initiator compound used for the HOMO calculation may be any kind of initiator, irrespective of whether it is an electron-donating or an electron-accepting initiator.

As also indicated above, the terms in a claim govern claim construction, on their own or in their claimed combination. Feature 1.5.2. refers back to “the polymerization initiator” of feature 1.2. Because of this direct back reference within the same claim, said term must be interpreted in the same manner for feature 1.5.2. as for feature 1.2. Consequently, this term in feature 1.5.2. must be construed such that the “at least one compound of the polymerization initiator” which has a HOMO that differs from the HOMO of the compound of Formula 1 by 0.60 eV or less can not only be an electron-donating initiator; it can also be an electron-accepting initiator.

The Claimant's counterarguments are not found convincing by the Court. The patent in suit itself does not clearly require that the "at least one compound of the polymerization initiator" must always be an electron-donating initiator. Quite to the contrary: The patent itself describes that the HOMO difference of 0.60 eV or less is calculated for "at least one compound of the polymerization initiator" in par. [0111], said compound being unspecified regarding its electron-donating or electron-accepting property. Only par. [0112] limits this to the electron-donating initiator. Moreover, par. [0111] refers to "polymerization initiators described below". This would be understood by the skilled person to refer the section starting with the header "Polymerization Initiator" and encompassing the subsections "Electron-Donating Polymerization Initiator" and "Electron-Accepting Polymerization Initiator", and would therefore establish that the HOMO difference of par. [0111] could also be a difference calculated for an electron-accepting initiator.

Moreover, par. [0134] and [0143] of the patent in suit designate the presence of an electron-donating initiator as merely "preferably", implying that embodiments without such initiator are also encompassed by the claimed invention. Such embodiments could therefore only contain an electron-accepting initiator. Consequently, the HOMO difference would necessarily have to be determined for said electron-accepting initiator. These passages of the patent in suit prevent that a skilled person would be led by the description towards arriving at an interpretation of feature 1.5.2. as pertaining exclusively to an electron-donating initiator.

There is also no contradiction between the understanding of the claims on their own and the description. It might be that, based on the explanations provided in the patent in suit (in par. [0029] and [0030]), the skilled person would understand that a HOMO difference of 0.60 eV or less between the compound of Formula 1 and an electron-donating initiator may be advantageous. However, even in light of these explanations the skilled person would not conclude from the claims that the "at least one compound of the polymerization initiator" must be such electron-donating initiator. The opposite would be correct: from this explanation the skilled person would conclude that the electron-donating initiator and its HOMO difference might be an essential feature of the invention which should be put into the claims. However, this feature was voluntarily not put into the claims by the patentee. That such essential feature is missing from the claims must not result in a *carte blanche* for the patentee to correct this omission by a narrowing claim interpretation in revocation or infringement proceedings. This would contravene the overruling legal principle of legal certainty and the *ratio legis* of Art. 84 EPC.

The Claimant also argues that different calculation methods can result in different HOMO values for the same compound. However, the Court notes that no calculation method for the eV value of the HOMO difference is provided in the claims. Therefore, any HOMO calculation method may be applied. The calculation method used in the patent in suit itself (in par. [0113] to [0118]) must be considered as one suitable method for calculating HOMO values and also for calculating the HOMO difference. The patent in suit itself, in its Examples, uses HOMO values calculated by this method for determining the HOMO difference. Consequently, the HOMO values provided by the patent in suit itself must be considered as HOMO values that can be used to determine the HOMO difference according to feature 1.5.2. By the same token, HOMO values calculated with the calculation method used by the patent in suit itself must be considered as HOMO values that can be used to determine the HOMO difference according to feature 1.5.2.

The Court moreover notes that the Claimant does not even provide a separate HOMO calculation for the compound "A-2" detected in the SONORA plates that are designated as infringing products by the Claimant. Instead, the Claimant just refers to the HOMO value assigned to the IR-absorbent

“A-2” by the patent in suit. The HOMO value for the tetraphenylborate (TPB) detected in the SONORA plates that is presented by the Claimant in the context of infringement is also the HOMO value provided by the patent in suit (for compound “D-1” on p. 35).

The Court therefore arrives at the conclusion that the “at least one compound of the polymerization initiator” which has a HOMO that differs from the HOMO of the compound of Formula 1 by 0.60 eV or less according to feature 1.5.2. can be an electron-accepting initiator or an electron-donating initiator. The value of the HOMO level determining the HOMO difference can be a HOMO value indicated in the patent in suit for a specific compound, or a HOMO value calculated with the method described in the patent in suit.

Consequently, the Court construes feature 1.5.2. as follows: “the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one compound of the polymerization initiator, said at least one compound being either an electron-donating polymerization initiator or an electron-accepting polymerization initiator, is 0.60 eV or less”.

d)

The term “acid color former” (feature 1.4.) is merely defining a chemical compound by its function. It is in dispute which compounds are covered by this term.

The Court agrees with the Claimant that the term “acid color former” must be construed as referring to a compound being able of changing its color from colorless to color upon contact with an acid. Moreover, any compound designated as acid color former (or with a synonymous term) must be considered to be an “acid color former” unless there is (chemical) evidence to the contrary.

According to par. [0175] of the patent in suit an acid color former is a compound which is able to “develop any color” upon contact with an electron-accepting compound, for example the proton of an acid. Since the exposure to radiation not only initiates polymerization but also formation of acid as a result of the reactions between the polymerization initiator and the IR-absorbent (compare par. [0030] of the patent in suit) in the exposed areas of the printing plate precursor, the color is formed in the same areas as polymerization takes place, i.e., the image areas. Thus, the correct formation of the image, and the correct alignment of the printing plate in the printer, can be checked already after exposure and before development has taken place. The use of such acid color formers for this purpose was known in the prior art (compare Strehmel et al., “NIR-Dyes for Photopolymers and Layer Drying in the Graphic Industry”, in: Dyes and Chromophores in Polymer Science, 1st ed. 2015, published by ISTE Ltd. and John Wiley & Sons, Inc. (FBD-T2), US 2007/0275322 A1 (FBD-T6), US 2009/0047599 A1 (FBD-T7), FBD-T19, EP 3 632 696 A1 (FBD-T20), EP 3 632 694 A1 (FBD-T21), and EP 3 640 039 A1 (FBD-T22)). Examples for chemical compound classes to which the acid color former may belong are provided in dependent claim 7, and lists of specific compounds which are suitable as acid color formers are provided in the patent in suit (par. [0176] – [0186]).

It is self-evident that a compound designated as “acid color former” or designated with a synonymous term in the prior art (e.g., “acid color developing agent” in FBD-T20 to -T22) must be considered to be such “acid color former” merely because of said designation unless there is evidence to the contrary. Applying the principle that the patent can be its own lexicon and taking into account that this has not been contested by the Defendants, the compounds contained in the lists in par. [0176] to [1086] of the patent in suit or covered by granted claim 7 must also be considered to be acid color formers within the meaning of the patent. A more detailed construction of the term is

only required for those cases where a compound is not explicitly designated as acid color former and does not possess one of the structures listed in the patent in suit.

The Court notes that par. [0175] of the patent in suit, which contains the definition of “acid color former”, contains the explicit wording “a compound having the property of developing any color” when coming into contact with an acid:

[0175] The “acid color former” for use in the disclosure means a compound having the property of developing any color due to heating with an electron-accepting compound (for example, proton of acid) being accepted. The acid color former is, in particular, preferably a colorless compound which has a partial backbone such as lactone, lactam, sultone, spiropyran, ester, or amide and in which such a partial backbone is to be rapidly ring-opened or cleaved due to contact with an electron-accepting compound.

Following the principle that the description may be taken into account as the patent’s own lexicon when interpreting the claims, the Court takes into account this definition provided by the patent in suit. At first glance, developing “any” color could not only mean a change from colorless to color, but could also encompass a change from one color to another color. This construction would not be in contradiction to other passages of the patent in suit. For example, par. [0185] of the patent in suit states that the hue of the color after development should “preferably” be green, blue or black for reasons of visibility. This statement shows that other colors are not excluded by the patent itself. Moreover, as pointed out by the Defendants, a “colorless” starting compound is only recited in connection with “preferably” by par. [0175]. This construction would also not be in contradiction to the intended function of the acid color former: rendering the image visible after exposure would still be possible, because it would still be possible to discern the resulting (differently colored) image from the (initially colored) background.

However, following the above-recited principles regarding the application of Art. 69 EPC, the terms in a claim must govern claim construction, on their own or in their claimed combination. The term used in the claim is “acid color former”. The patent in suit provides a definition of said term, namely that said compound has the property of “developing” a color. The terms “form” (in the noun “former”) and “developing” must be given their literal meaning which would be that color is formed/developed, i.e. brought to existence, and that therefore the starting compound must be colorless.

The Court therefore follows the Defendants in that an “acid color former” can form “any” color when contacted with an acid. However, to be an “acid color former” in the context of the patent in suit, such compound must also “develop” a color.

Therefore, the Court construes the term “acid color former” as designating a colorless compound able to change its color from colorless to colored upon contact with an acid.

Based on the above, feature 1.4. is construed by the Court as follows: the “acid color former” is any compound designated as acid color former unless there is (chemical) evidence to the contrary. Absent such designation, a compound being able of changing its color from colorless to color upon contact with an acid is considered to be an acid color former.

C. Decision on the counterclaim for revocation

The counterclaim for revocation of the patent in suit is justified.

Regarding the claims as granted (“Main Request”), the patent in suit does not disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art over the complete scope of the granted claims. Therefore, the patent must be revoked based on Art. 138(1)b) EPC.

The application to amend the patent in suit based on Auxiliary Request 1, Auxiliary Request 2 or Auxiliary Request 3 is refused because each of these Auxiliary Requests contravenes the patentability requirements of the EPC (and is thus not “valid” according to R. 30.1 b)). Auxiliary Request 1 lacks novelty, Auxiliary Requests 2 and 3 contravene Art. 123(2) EPC, and Auxiliary Request 2 additionally contravenes Art. 83 EPC.

I. Claims as granted (Main Request)

1. Insufficiency of Disclosure

The subject-matter of claim 1 as granted is insufficiently disclosed. The patent in suit does not disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art over the complete scope of the granted claims. Therefore, the patent must be revoked based on Art. 138(1)b) EPC.

a) Legal considerations of the Court

The question to be answered when considering sufficiency of disclosure is whether a patent discloses the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Art. 138(1)b) EPC). Art. 83 EPC sets the same requirement.

aa)

It is the position of the Court that the subject-matter of a patent must be sufficiently disclosed based on the patent as a whole, including the Examples, and taking into account the common general knowledge of the skilled person. It is the patent that has to demonstrate the workability of the claimed subject-matter. However, as the patent is directed to the skilled person, the skilled person’s common general knowledge must also be taken into account when considering the question of sufficiency. Evidence for this knowledge can be, for example, scientific textbooks.

bb)

Sufficiency of disclosure presupposes that the skilled person is enabled by the patent to obtain substantially all embodiments falling within the ambit of the claims. The patent’s disclosure must allow the claimed invention to be performed in the whole range claimed (“whole range sufficiency”). To define the whole range claimed, all technically sensible claim interpretations must be taken into account. Specifying one way of carrying out the claimed invention may be sufficient to satisfy the description requirement under R. 42.1 e) EPC, but it is not necessarily sufficient to satisfy the requirements for sufficiency of Art. 83 resp. Art. 138(1)b) EPC. Rather, the person skilled in the art named in those Articles must be enabled by the patent and their common general knowledge to use the claimed invention across the entire scope without having to start a research programme (i.e., without undue burden).

The requirement that the disclosure must enable the implementation of the claimed invention in its entire scope is consistent with the concern that, in principle, the right of exclusion conferred by a patent with respect to its scope of protection must be commensurate to the actual contribution of the patent to the state of the art.

The disclosure of just one way of performing an invention is thus only sufficient if it allows the invention to be performed in the whole range claimed rather than only in some embodiments of the claimed subject-matter.

cc)

In order to decide whether an invention is sufficiently disclosed, it first must be decided what the “invention” that must be enabled and sufficiently disclosed according to Art. 83 and Art. 138(1)b) EPC actually is. Is it the combination of the features as claimed, or is it only the “inventive idea” underlying the patent and potentially justifying an inventive step?

It is the Court’s position that the term “invention” in Art. 83 and Art. 138(1)b) EPC corresponds, in accordance with R. 43.1 EPC, to the specific combination of features in a claim (so also G 2/98, Reasons 2). Consequently, the meaning of “invention” in Art. 138(1)b) EPC must be “subject-matter of the claims”. The term “invention” in the context of Art. 138(1)b) EPC does not pertain to any advantage or mechanism or other characteristic of the invention which is merely described in the description and might be the “inventive idea”, but has no counterpart in the features of the claims. There is in particular no reason to define the “invention” as claimed on the basis of a reaction mechanism or other explanation which is just described in the patent description when the wording of the claim does not require this.

The requirement of sufficiency of disclosure therefore relates to the invention defined in the claims, and in particular to the combination of structural and functional features of the claimed invention.

As the features of the claims define the “invention” considered under Art. 138(1)b) EPC, a technical effect is to be taken into account in assessing sufficiency only if it is explicitly claimed. If it is not claimed, it is irrelevant for sufficiency whether said technical effect is achieved over the complete claimed scope. The question whether said technical effect is indeed achieved over the complete scope might then become relevant when assessing inventive step (so also G 1/03).

Therefore, sufficiency must be evaluated based on the claimed subject-matter, not based on the problem allegedly solved by the invention, and certainly not based on an explanation of mechanism that is not contained in the patent or clearly derivable from the patent for the skilled person. The Court does therefore not take into account those arguments of the Parties that pertain to the question whether the claimed subject-matter solves a/the technical problem underlying the patent in suit when evaluating sufficiency.

dd)

A successful objection of insufficient disclosure presupposes that there are serious doubts, substantiated by verifiable facts. Sufficiency is therefore considered to be a matter of fact. If facts are undisputed, such undisputed facts are considered as “verifiable facts” by the Court unless there is evidence to the contrary.

ee)

The Court notes that the Claimant also defends the granted claims against the insufficiency attack by asking how a patent could unduly confer protection over subject-matter which is insufficiently disclosed and therefore not workable. This defence, however, is without merit. The Court cannot accept the argument that a patent on subject-matter which cannot be carried out would be of no harm; sufficiency is a requirement of the EPC (Art. 83, 138(1)b) EPC) that must be fulfilled, irrespective of what potential effects on competitors a patent might or might not have.

b) Finding on insufficiency

The subject-matter of claim 1 as granted is not sufficiently disclosed for it to be carried out over the whole claimed range.

aa)

The “invention” (to use the terminology of Art. 138(1)b EPC), i.e. the claimed subject-matter, for which sufficiency of disclosure has to be evaluated in the present case is defined by granted claim 1.

The subject-matter of granted claim 1 is defined by the features as listed above. Claim 1 pertains to a lithographic printing plate precursor comprising an image recording layer.

The construction of features 1.2. and 1.5.2. is decisive for the outcome of the Court’s evaluation regarding sufficient disclosure. Feature 1.2. as construed by the Court means that the “polymerization initiator” can comprise (i) only an electron-donating initiator; (ii) only an electron-accepting initiator, or (iii) a mixture of both. Consequently, the “at least one compound of the polymerization initiator” which complies with the HOMO difference required by feature 1.5.2. can be an electron-accepting initiator or an electron-donating initiator.

bb)

It is undisputed between the Parties that the invention as described in the patent in suit for the presence of both kinds of initiator (embodiment (iii)) wherein the HOMO difference of feature 1.5.2. is calculated for the electron-donating initiator is sufficiently disclosed, and that at least one way of carrying out this embodiment is exemplified by the Examples. Indeed, in all Examples an electron-donating and an electron-accepting initiator are used in combination, and the HOMO difference in all Examples is the HOMO difference calculated for the electron-donating initiator. The Court therefore shares the Parties’ common position that the invention is sufficiently disclosed for embodiment (iii) when the HOMO difference is calculated with the electron-donating initiator.

The questions to be answered here are

- whether embodiments (i) and (ii) of feature 1.2. are also sufficiently disclosed, and
- whether those embodiments of feature 1.5.2. are sufficiently disclosed wherein the HOMO difference is calculated with the electron-accepting initiator instead of the electron-donating initiator.

Sufficiency of disclosure would have to be denied if the claimed compositions would not be suitable as image recording layer for a lithographic printing plate precursor.

cc)

It is the Court’s position that an image recording layer comprising (i) only an electron-donating initiator or (ii) only an electron-accepting initiator would be suitable as image recording layer.

Neither the arguments of the Defendants nor the arguments of the Claimant are suitable to raise serious doubts that an image recording layer with just an electron-accepting polymerization initiator or with just an electron-donating polymerization initiator (“embodiments (i) and (ii)”) can be used in a lithographic printing plate precursor, for the following reasons:

First, neither of the Parties has submitted a statement that they seriously doubt that image recording layers with just one kind of initiator could successfully be used in a lithographic printing plate precursor.

Second, FBD-T2 and FBD-T19 describe image recording compositions with just an electron-accepting initiator (FBD-T2: scheme of Fig. 7.1; FBD-T19: an onium salt, compare claim 1). FBD-T2 is a textbook chapter and therefore generally suitable as evidence for common general knowledge. FBD-T23 describes an image recording composition with just an electron-donating initiator (FBD-T23: a borate, compare claim 1). These image recording compositions are used in these documents for lithographic printing plate precursors.

Third, the explanations on the mode of action given by the Claimant and the Defendants based on the scheme from FBD-T18 (reproduced above), albeit undisputed, are not inducing serious doubts that other image recording layer compositions with just one kind of initiator would also work as lithographic plate precursor.

Consequently, based on the Parties' submissions alone the Court has no reason to seriously doubt that a lithographic printing plate precursor with an image recording layer comprising just an electron-accepting polymerization initiator or just an electron-donating polymerization initiator will still be suitable for its intended purpose of photolithography. Moreover, verifiable facts (i.e., the contents of FBD-T2, FBD-T19, and FBD-T23) speak against such serious doubts.

The Defendants argue with a lack of essential features in claim 1 (which is an objection under Art. 84 EPC and therefore generally not applicable to the question of sufficiency) and that the problem allegedly solved by the invention cannot be solved with only an electron-donating or only an electron-accepting initiator. This is not convincing to the Court, because claim 1 just asks for a functioning printing plate precursor, and because it is apparent from, e.g., the documents cited in the patent and by the Defendants themselves (FBD-T2, FBD-T19 and FBD-T23), that such plate precursor can also work if only one kind of initiator is present.

The Claimant defends claim 1 against the insufficiency attack by arguing that the skilled person would "exclude any embodiment that is not consistent with the teaching of the specification" (Defence to the counterclaim for revocation, mn. 237). The Claimant argues, invoking T 521/12 and T 2773/18, that sufficiency is given if the skilled person, upon consideration of the entire disclosure of the patent and using common general knowledge, can infer what would and what would not work, even if the claims encompass "what does not work". This argumentation is not convincing to the Court, because the skilled person would not have had any reason to believe that image recording layers with just one kind of polymerization initiator would "not work". The skilled person would have no reason to rule out embodiments (i) and (ii) as "only theoretically possible" but non-working or extremely unlikely. Quite to the contrary: as explained above in the section pertaining to claim construction, embodiments (i) and (ii) are embodiments the skilled person would rule in, based on their understanding of the wording of the claims, their understanding of the description, and their common general knowledge regarding possible image layer compositions.

That lithographic printing plate precursors with just one initiator are clearly nonsensical/non-working is also not taught by the patent in suit. Quite to the contrary, the statements in par. [0134] and [0143] would dissuade the skilled person from assuming that the patent considers such printing plate precursors to be nonsensical and non-working. Moreover, the Court notes that EP 1 223 196 A2 (FBD-T3) is cited in par. [0006] of the patent in suit, which describes a printing plate precursor with just an electron-donating initiator.

Therefore, the arguments relying on the mechanism of action resp. claim construction presented by the Parties are not found convincing by the Court with regard to the question whether image recording layers with just an electron-donating initiator or just an electron-accepting donator would be suitable for lithographic printing plate precursors.

Whether a composition wherein only the HOMO difference between an electron-accepting initiator and the compound of Formula 1 is 0.60 eV or less would be suitable as image recording layer can remain unanswered, because this embodiment is not sufficiently disclosed by the patent in suit.

dd)

As construed by the Court, feature 1.5.2. encompasses an embodiment wherein the HOMO difference is calculated with an electron-accepting initiator. This embodiment is not sufficiently disclosed by the patent in suit to such extent that the patent enables the skilled person to perform it without undue burden.

Both parties agree in their arguments that the HOMO difference is described in the patent in suit as being important for enhanced electron transfer from an electron-donating initiator to the IR-absorbent. The passage both parties rely on is par. [0030]:

“It is estimated that use of the compounds represented by Formula 1 having a specified electron-withdrawing group -X at a specified position in combination with the polymerization initiator allows electron transfer from the polymerization initiator to the compound represented by Formula 1 to occur in exposure and decomposition of the polymerization initiator allows an acid or the like to be generated, thereby resulting in an enhancement in the rate of decomposition in exposure of the acid color former and excellent color formability.”

This passage therefore refers to an electron-donating initiator and its HOMO difference to the compound of Formula 1. It designates the transfer from the electron-donating initiator to the IR-absorbent as mechanism underlying advantageous effects described in the patent in suit. At least one way of performing this embodiment (HOMO difference of 0.60 eV or less with electron-donating initiator) is described by the patent, in (all) the Examples as well as in the generic description which indicates HOMO levels for the electron-donating initiators on p. 35 and HOMO levels for compounds of Formula 1 on pages 10-12. The latter allows the skilled person the selection of pairs of electron-donating initiators and compounds of Formula 1 which would fulfill the HOMO difference criterion of feature 1.5.2. Thus, embodiments wherein the HOMO difference of feature 1.5.2 is calculated with an electron-donating initiator are deemed by the Court to be sufficiently disclosed.

However, no corresponding disclosure can be found for an embodiment wherein the polymerization initiator used to calculate the HOMO difference is an electron-accepting initiator. No HOMO values are provided in the patent in suit for any of the electron-accepting initiators shown therein. None of the Examples discloses a HOMO difference calculated with an electron-accepting initiator, let alone a HOMO difference of 0.60 eV or less. Finding suitable electron-accepting initiators possessing the required HOMO energy level among all electron-accepting initiators listed in the patent in suit would therefore amount to a research programme, and thus to undue burden.

Therefore, the patent in suit does not explicitly disclose at least one way to perform an embodiment wherein the HOMO difference is calculated with an electron-accepting initiator.

Such embodiment could consequently only be considered as sufficiently disclosed if the common general knowledge of the skilled person alone would provide suitable electron-accepting initiators with a fitting HOMO level, or if such electron-accepting initiators having a fitting HOMO level could be found by the skilled person without undue burden. There is no evidence on file for this. The patent itself also provides no guidance in this regard. As already indicated above, the skilled person might therefore need to start a research programme to find fitting electron-accepting initiators. If, however, the skilled person would be forced to start a research programme to be able to perform claimed subject-matter, said subject-matter is not made available in an enabling manner (i.e., sufficiently disclosed) by the patent.

Consequently, whole range sufficiency must be denied for claim 1 as granted, because said claim encompasses embodiments wherein the HOMO difference of feature 1.5.2. is calculated with an electron-accepting initiator and because said embodiments are insufficiently disclosed.

The same reasoning applies to the method of granted claim 12, because said method uses the printing plate precursor of claim 1.

The same reasoning applies to dependent claims 2-3 and 6-11 of the patent as granted, as none of them is restricted such that its subject-matter exclusively pertains to an image recording layer wherein the HOMO difference of feature 1.5.2 is calculated with an electron-donating initiator (and is therefore sufficiently disclosed).

Consequently, the ground for revocation of Art. 138(1)b) EPC is justified for claims 1-3 and 6-12 of the patent as granted.

2. Refusal of the Main Request

The Main Request of the Claimant to maintain the patent as granted must therefore be refused because the subject-matter of the granted claims is insufficiently disclosed.

The patent must be revoked because the ground for revocation of Art. 138(1)b) EPC is justified.

This ground of revocation is only justified for the subject-matter of claims 1-3 and 5-12 as granted. The Court notes that the Claimant has not requested maintenance of the patent with the subject-matter of granted claims 4 and 5. Instead, the Claimant requests dismissal of the counterclaim for revocation “in its entirety” (excluding partial maintenance with any of the granted claims) or maintenance of the patent on the basis of one of Auxiliary Requests 1 to 3.

A partial revocation of the patent, maintaining granted claims 4 and 5, would be precluded anyway by the lack of novelty of the subject-matter of these claims. The following evaluation of Auxiliary Request 1 will show that the features of the corresponding claims 4 and 5 of (narrower) Auxiliary Request 1 lack novelty. The same applies to granted claims 4 and 5.

II. Auxiliary Request 1

The amendments performed in claim 1 of Auxiliary Request 1 as compared to claim 1 of the Main Request are as follows:

“A lithographic printing plate precursor comprising an image recording layer on a hydrophilic support,

~~characterized in that wherein~~ the image recording layer comprises a polymerization initiator, an infrared absorbent, a polymerizable compound, and an acid color former, wherein the polymerization initiator comprises an electron donating polymerization initiator and an electron-accepting polymerization initiator, wherein the infrared absorbent comprises a compound represented by the following Formula 1, and the difference between the HOMO represented by Formula 1 and the HOMO of at least one compound of the electron-donating polymerization initiator is 0.60 eV or less [...]"

As a consequence of this amendment in claim 1, granted claim 6 has been deleted and claim 4 has been amended from "the polymerization initiator is a borate compound" to "the polymerization initiator comprises a borate compound".

1. Admissibility under R. 30.1 RoP

The admissibility of Auxiliary Request 1 is contested by the Defendants. The Defendants invoke R. 30.1, R. 50.2 RoP, and Art. 24(1)c) UPCA in conjunction with R. 80 EPC.

Admissibility of a party's request must also be considered by the Court as a rule, as it is an indispensable prerequisite to grant of such request, irrespective of whether admissibility is contested by the opposing party.

The pertinent law on admissibility of an application to amend made concomitantly with the Defence to a counterclaim for revocation is R. 30.1 RoP. R. 50.2 RoP (also invoked by the Defendants) contains the same regulations for a Defence to a revocation statement; it is not pertinent here, as it pertains to a different kind of proceedings.

The requirements of R. 30.1 a) and c) RoP are met by the Claimant's application to amend the patent, as the proposed amendments and the statement that the application to amend is made conditional are clearly contained in the Defence to the counterclaim for revocation. The only open question is whether the requirements of R. 30.1 b) RoP are also fulfilled.

R. 30.1 b) RoP requires an explanation in the Defence to the counterclaim for revocation as to why the amendments satisfy the requirements of Art. 84 and Art. 123(2)(3) EPC, and why the proposed amended claims are valid and, if applicable, why they are infringed. In cases where a lack of satisfying the requirements of Art. 84 and Art. 123(2)(3) EPC is not disputed by the parties at all (UPC_CFI_7/2023 (LD Düsseldorf), Decision of 3 July 2024 – Bette v. Kaldewei) a detailed explanation in this regard may not be given. Even if one sees that differently – a more detailed explanation is mandatory in any case –, any explanation suffices as long as it raises the impression that it could serve as an explanation to R. 30.1 b) RoP (see UPC_CFI_255/2023 (CD Paris), Decision of 19 July 2024, mn 32 – Meril Italy v Edwards Lifesciences). It does not have to be complete or justified – these questions have to be addressed separately from the question of admissibility.

The conditions of R. 30.1 b) RoP are doubtlessly fulfilled by the present Defence to the counterclaim for revocation with regard to the question of infringement (compare section B.IV starting on p. 48 of the Defence to the counterclaim), and with regard to Art. 123(2)(3) EPC and to the question of validity (compare section C.III.2 starting on p. 78 of the Defence to the counterclaim).

The explanations provided with regard to Art. 123(2)(3) EPC may just consist of references to the description of the patent as granted and to the original application, and of a statement that Art.

123(2)(3) EPC is not violated, but this suffices to fulfil the requirement of providing an “explanation” set by R. 30.1 b) RoP.

However, no explanation is provided by the Claimant why the amendments are considered to be clear. The mere statement that the claims are “supported” by the description (Defence to the counterclaim for revocation, mn. 262) may address one of the two conditions set by Art. 84 EPC (support being required by Art. 84 EPC as well as clarity); however, Art. 84 EPC also requires that the claims are “clear”, and the Defence to the counterclaim for revocation is silent in this regard.

The explanation provided by the Claimant is certainly incomplete (and thus “insufficient” in the terminology of UPC_CFI_255/2023 (CD Paris), Decision of 19 July 2024, mn. 32 – Meril Italy v Edwards Lifesciences) as it is devoid of arguments with regard to clarity, but not to such extent that this would justify a refusal of the Auxiliary Request as inadmissible.

Therefore, Auxiliary Request 1 is not found inadmissible under R. 30.1 RoP, in spite of the lacking explanation regarding clarity. The explanation required by R. 30.1 b) RoP is incomplete in this regard, but it is not completely lacking.

The Defendants also invoke the regulations of R. 80 EPC by way of conjunction with Art. 24(1)c) UPCA. This objection is unjustified for the reason alone that R. 80 EPC is not directly applicable to claim amendments filed before the UPC. Its regulation is clearly a regulation limited to opposition proceedings before the EPO. The Rules of Procedure of the UPC are *lex specialis* in this regard. As the RoP contain a complete regulation on the prerequisites for admissibility of an application to amend the patent in R. 30.1 RoP (and R. 50.2 RoP) there is also no regulation gap that must be closed by transferring the regulations of R. 80 EPC to revocation proceedings before the UPC.

The Defendants moreover raise an inadmissibility objection against the replacement of “is a borate compound” with “comprises a borate compound” in amended dependent claim 4. This amendment broadens the claim as it now allows for additional polymerization initiators in addition to a borate compound. The Defendants therefore see this amendment as constituting a “new” claim that has been added, rather than an adaptation of the wording of an existing claim to the amendments that were conducted in claim 1. Moreover, the Defendants consider the amendment of claim 4 to be no amendment in reaction to an invalidity attack (unlike the amendment to claim 1). The Defendants deem this amendment inadmissible based on case law of the Boards of Appeal. According to said case law, addition of a new dependent claim during opposition proceedings is generally forbidden under R. 80 EPC, as such additional dependent claim does not limit the related independent claim and therefore is unsuitable to overcome a ground for opposition (compare Case Law of the Boards of Appeal, version of June 2024, IV.C.5.1.2.c.i). The Defendants request that this jurisdiction should be applied here. However, as already explained in the preceding paragraph, R. 80 EPC is not applicable to claim amendments filed before the UPC. Its regulation is clearly a regulation limited to opposition proceedings before the EPO. The Rules of Procedure are *lex specialis* and there is once more no regulation gap that must be closed.

If a patentee proposes amendments to an independent claim of a patent in reply to an invalidity attack, it may become necessary and appropriate to amend a dependent claim as well to maintain conciseness of the claims. Conciseness is one of the criteria to be met by amended claims under Art. 84 EPC (which must be fulfilled by the amendments according to R. 30.1 RoP). The amendment to claim 4 is occasioned by the admissibility requirements of R. 30.1 RoP, because maintaining claim 4 in its granted form would have led to a clarity issue, namely to a contradiction to amended claim 1.

Amended claim 1 requires two different polymerization initiators; only one of them is an electron-donating initiator like borate. Thus, maintaining granted claim 4 in its present form would have led to a contradiction between amended claim 1 and claim 4. This contradiction is removed by the amendment in dependent claim 4, which therefore is occasioned by the amendment to claim 1 and necessary under Art. 84 EPC. Consequently, the amendment of granted claim 4 is justified and occasioned by the requirements of R. 30.1 RoP.

Thus, the request to amend the patent to the claims of Auxiliary Request 1 is deemed to be admissible under R. 30.1 RoP.

The question whether the claims of Auxiliary Request 2 comply with Art. 123(2)(3) and Art. 84 EPC has to (and will) be decided separately (see below).

2. Compliance with Art. 123(2)(3) EPC

The amendments performed in Auxiliary Request 1 comply with Art. 123(2)(3) EPC. Compliance with Art. 123(2) EPC is only at dispute for amended claims 1 and 4.

a) Compliance of amended claim 1 with Art. 123(2) EPC

Amended claim 1 of Auxiliary Request 1 complies with Art. 123(2) EPC.

The basis of the amendments performed in claim 1 as provided by the Claimant is not contested by the Defendants. The Court also sees no reasons for an objection under Art. 123(2) EPC; basis for the amendments can be found at least in par. [0030], [0110], [0135], [0141] of the original application.

b) Compliance of amended claim 4 with Art. 123(2) EPC

The amendment performed in claim 4 also complies with Art. 123(2) EPC.

The Defendants argue that the amendment in claim 4 violates Art. 123(2) EPC. Allegedly, this claim now encompasses embodiments wherein the claimed borate “could be either the electron-donating polymerization initiator, the electron-accepting polymerization initiator, or a different polymerization initiator”, whilst the borate is clearly designated as electron-donating initiator in the original application (par. [0135]). However, this is a semantic argument, not an argument based on the reading of the claim with a skilled person’s mind willing to understand. A skilled person with such mindset would not entertain the idea that the borate can be anything else than an electron-donating initiator. That the borate is electron-donating is taught by the patent in suit and undisputed. Consequently, this argument of the Defendants is unsuitable to establish a violation of Art. 123(2) EPC by amended claim 4 of Auxiliary Request 1.

The correct question to be asked for amended claim 4 when applying Art. 123(2) EPC is whether the claim in its amended form finds basis in the application. Due to the wording “wherein the polymerization initiator comprises a borate compound” amended claim 4 could in theory be understood such that the claimed borate could be either the electron-donating polymerization initiator of claim 1, or a different polymerization initiator, which is present in addition to the electron-donating polymerization initiator of amended claim 1. However, taking into account the description (for example par. [0137]), the Court is of the opinion that it will be clear to the skilled person

that the borate compound of amended claim 4 is the electron-donating initiator of claim 1. As this construction finds basis in the original description (e.g., in par. [0135]), amended claim 4 does not contravene Art. 123(2) EPC.

c) Compliance with Art. 123(3) EPC

Art. 123(3) EPC is also met because the scope of amended claim 1 (and consequently of all other claims, which are directly or indirectly dependent on claim 1) is clearly narrower than that of granted claim 1 (whose scope did additionally cover embodiments with just one kind of polymerization initiator and with a HOMO difference calculated with an electron-accepting initiator, see claim construction).

Auxiliary Request 1 therefore complies with Art. 123(2)(3) EPC.

3. Clarity, Conciseness and Support under Art. 84 EPC

R. 30.1 b) RoP requires that the “amendments” must satisfy the requirements of Art. 84 EPC, i.e. must be clear, concise and supported by the description. This corresponds to Art. 101(3)a) EPC, which requires that an amendment made during opposition proceedings must meet the requirements of the EPC (*inter alia* of Art. 84 EPC).

The provision explicitly refers to “amendments”, not to “claims”. Therefore, an examination of the content of the claims as granted and maintained on their compliance with Art. 84 EPC is excluded by R. 30.1 b) RoP. Clarity and conciseness can only be examined by the UPC with regard to those amendments which were not already part of the granted claims. Any unclarity already present in the granted claims must be “lived with”. This principle is also to be applied when a granted dependent claim is integrated into an independent claim (here: granted claim 6 into claim 1), provided this does not create a hitherto inexistent clarity issue. If a complete dependent claim is transferred into a superseding independent claim this generally cannot create a clarity issue. Clarity and conciseness can only be examined for amendments to the claims of a granted patent in as far as any unclarity or inconciseness in the amended claims is the result of the amendment and was not already present in the granted claims (so also G 3/14).

In the present case, therefore, clarity and conciseness can only be examined with regard to that part of the amendment which was introduced from the description, i.e. the introduction of “electron-donating” into feature 1.5.2. The Court finds that no clarity issue arises from the term “electron-donating” itself or from its combination with the other features, and no objection is raised in this regard by the Defendants. The term itself is moreover not even open to a clarity objection under Art. 84 EPC, as it was already used in the granted claims.

The other amendments in claim 1 were taken from granted claim 6, which was integrated into claim 1 in its entirety. The amendment in itself does not create a clarity issue. As granted claim 6 was already part of the granted claims, its compliance with Art. 84 EPC is not at issue here, following the above understanding of R. 30.1 b) RoP.

Conciseness is also not at stake for amended claim 1.

The amendment in claim 1 is also supported by the patent description, namely by par. [0030], [0112], [0137], and [0143] (corresponding to par. [0030], [0110], [0135], [0141] of the original application). This is uncontested by the Defendants.

Therefore, the requirements of Art. 84 EPC are found to be met by Auxiliary Request 1.

4. Sufficiency (Art. 83 EPC)

The subject-matter of Auxiliary Request 1 is sufficiently disclosed; therefore, this request complies with Art. 83 EPC.

The subject-matter of Auxiliary Request 1 corresponds to that partial embodiment of the granted claims (Main Request) which is characterized in that the polymerization initiator comprises both an electron-donating initiator and an electron-accepting initiator (“embodiment (iii)” in the Defendants’ terminology) and in that it is the electron-donating initiator which is used to calculate the HOMO difference of feature 1.5.2.

Sufficient disclosure for this embodiment is not contested by the Defendants and the Court also finds that this embodiment is sufficiently disclosed, for the reasons as discussed above in connection with the Main Request.

5. Novelty (Art. 54(1) EPC)

The subject-matter of Auxiliary Request 1 lacks novelty over each of EP 3 632 696 A1 (FBD-T20), EP 3 632 694 A1 (FBD-T21), and EP 3 640 039 A1 (FBD-T22), which are prior art under Art. 54(3) EPC.

The crucial issue at dispute is the question whether feature 1.5.2. is disclosed by the cited prior art documents. The Parties agree that said feature has no explicit counterpart in the cited prior art documents. They disagree on the question whether feature 1.5.2. is implicitly disclosed by the cited prior art documents. The Defendants argue that the claimed HOMO difference is implicitly disclosed by each of these documents; this is contested by the Claimant.

The Court finds the Defendants’ position regarding implicit disclosure of the HOMO difference convincing for the following reasons:

a) Legal considerations of the Court

For lack of novelty to be found, each and every feature of the claimed subject-matter must be derivable directly and unambiguously from one single prior art document (UPC_CFI_252/2023 (CD Munich), Decision of 17 October 2024 – NanoString v Harvard College, Headnote 3; UPC_CFI_315/2023 (CD Paris), Decision of 5 November 2024, mn. 9.1 – NJOY v Juul Labs). This question must be answered from the vantage point of the notional skilled person, taking into account this person’s common general knowledge at the publication date of the cited document in the case of prior art cited under Art. 54(2) EPC, or at the priority date resp. application date of the cited document in the case of an Art. 54(3) EPC document.

For the purposes of assessing novelty it is irrelevant whether a potentially novelty-destroying prior art document addresses the same technical problem that the patent in suit seeks to solve (as brought forward by the Claimant). Which problem is solved by a prior art document is irrelevant to the question of novelty of the subject-matter of a claim if said problem is not a feature of the claim (or construed as such, which is not the case here). If a feature-by-feature comparison of a claim with a document of the prior art shows that all features are disclosed in combination by said

prior art document, then said document must be considered novelty-destroying, even if it solves a different problem than the patent in question or does not mention any problem it intends to solve. Whether an (unclaimed) problem is solved by the claimed subject-matter or the prior art could only be a criterion for the assessment of inventive step.

It is also irrelevant whether a potentially novelty-destroying prior art document comprises a general "guidance" (as the Claimant puts it) for selecting ingredients of a composition, thus arriving at the claimed subject-matter. The decisive point is, rather, whether a prior art document discloses a composition that contains all the ingredients required for falling within the ambit of the claim. If such composition is described, for example, in an individualized form in an Example of a prior art document, this is sufficient to deny novelty. It is irrelevant whether the same prior art document discloses other, deviating compositions. The Example itself is the single source of novelty-destroying disclosure.

This "photographic" approach to assessing novelty, which is also applied by the EPO and by national courts of the Contracting Member States, requires that the prior art actually discloses the claimed features, be it explicitly or implicitly.

Implicit disclosure means no more than the clear, immediate and unambiguous consequence of what is explicitly mentioned. An alleged prior art disclosure of a feature can be considered "implicit" if it is immediately apparent to the skilled person that nothing other than the alleged implicit feature forms part of the subject-matter disclosed. "Implicit disclosure", however, does not only mean information that the skilled person can unequivocally derive from a cited document in addition to what is explicitly described therein. Rather, "implicit disclosure" means any feature which a person skilled in the art would objectively consider as necessarily implied in the explicit content, e.g. in view of general scientific laws. A feature is also implicitly disclosed if, in carrying out the teaching of a prior-art document, the skilled person would inevitably arrive at a result falling within the terms of a claim.

Whether a known product possesses an implicit feature does not depend on whether the skilled person's attention is drawn to precisely that feature by a prior art document or their common general knowledge (as argued by the Claimant), but merely on whether, from a purely objective perspective, said product inevitably must possess that feature. For the criterion of "direct and unambiguous disclosure" to be met, it is therefore not required that the skilled person would even realise that the feature is implied when reading the prior art document. Such implicit features that exist irrespective of whether a skilled person takes notice of them or not are considered by the Court to be inherent to a product and will therefore be called "inherent features" in the following. They are encompassed by the term "implicit feature", which also encompasses features which the person skilled in the art would objectively consider as necessarily implied in the explicit content based on the skilled person's understanding of a document.

A composition defined by its chemical ingredients, like any commercial product, does *per se* not implicitly disclose anything beyond its composition or internal (chemical or physical) structure (so also G 1/92). These characteristics are intrinsic (inherent) to the composition. In contrast thereto, extrinsic characteristics, which are only revealed when a product is exposed to interaction with specifically chosen outside conditions, e.g. reactants or the like, in order to provide a particular effect or result or to discover potential results or capabilities, are not inherent to the product *per se* as they are dependent on deliberate choices being made. Typical examples are the application as a pharmaceutical product of a known substance or composition (Art. 54(5) EPC) and the use of a known compound for a particular purpose, based on a new technical effect. Thus, such extrinsic

characteristics cannot be considered as being made available to the public by a mere publication of the product's chemical composition.

In contrast thereto, inherent characteristics of a chemical composition are features of the composition which are properties of the composition (resp. its components) which do not point beyond the composition/compound *per se*. Any physicochemical parameter characterizing a chemical compound which is the inevitable result of the chemical structure and electron distribution of said compound can and must therefore be considered to be an "inherent feature" of a chemical compound. Whether the skilled person was aware of said property or had any reason to measure said parameter is irrelevant in such case. It is sufficient that the compound as such was available to the public (so also G 1/92; Headnote 1 and Reasons 2). The same position was taken by the German FCJ in BGH - X ZB 4/79 – Terephthalsäure and confirmed in BGH – X ZR 126/09 - Leflunomid with regard to a property of a chemical compound that was caused by its chemical structure. Such property is inherent (German term used in BGH "Leflunomid": "immanent") to the chemical compound.

The position taken in T 933/18 (Reasons 31.2), cited by the Claimant, that "an intrinsic/inherent feature of a product normally relates to a technical effect caused by an interaction with specifically selected outside conditions, i.e. a certain use of a product, while structural features of a product are normally implicit to that product" is not convincing to the Court. What T 933/18 defines as "intrinsic/inherent feature" is, in fact, an extrinsic characteristic which is only revealed as technical effect upon interaction with specifically selected outside conditions (here: "a certain use").

Summarizing, it is the Court's position that any physicochemical parameter characterizing a chemical compound which is the inevitable result of the chemical structure and electron distribution of said compound is an inherent and thus implicit feature of said compound. It is therefore made available to the public once the compound *per se* is made available to the public. The same consideration applies to chemical compositions consisting of more than one chemical compounds.

b) Implicit disclosure of a HOMO value of a chemical compound / a HOMO difference of two chemical compounds

Applying the above principles to the question whether a HOMO value of a chemical compound is an inherent (and thus implicit) feature of said compound, the Court comes to the conclusion that a HOMO value is an inherent feature of a chemical compound. Likewise, the HOMO difference of two compounds contained in a composition is an inherent feature thereof. The reasons for this conclusion are as follows:

The HOMO value corresponds to the energy level of the outermost molecular orbital which has an electron and thus depends on the chemical structure of a compound (here: of the IR-absorbent and of the polymerization initiator). It is, therefore, inherent to chemical compounds. They necessarily must possess a HOMO value (because they possess orbitals and electrons and consequently a HOMO) and said HOMO value will depend on their chemical structure. As the HOMO value of a chemical compound is inherent and therefore implicit to said compound, the same must apply to the HOMO difference of two compounds in a chemical composition.

The Claimant's counterarguments are not convincing to the Court.

The Claimant admits that the HOMO value of a compound depends on the chemical structure of said compound. However, the Claimant takes the position that this would not mean that the skilled person would directly and unambiguously infer the HOMO value from the disclosure of a chemical

compound. An implicit disclosure of a compound's HOMO value would require that a skilled person would have "thought about calculating the HOMO value" of the respective compound (Defence to the counterclaim for revocation, mn. 287). The skilled person would not be able to "determine the HOMO value of a compound at first sight" because calculations are required (Defence to the counterclaim for revocation, mn. 290).

These arguments are not convincing in view of the legal considerations provided above. Whether a known product possesses an inherent feature does not depend on any consideration of the skilled person but merely on whether, from a purely objective perspective, said product inevitably must possess that feature. It is not even required that the skilled person would realise that the feature is inherent to the product. The HOMO value of a compound depends on the chemical structure of a compound and is therefore inherent to the compound.

The Claimant also argues that the HOMO value could not be considered to be implicit to the compounds used in the cited prior art because it would require the choice of a specific computational protocol for its calculation which is not disclosed in the prior art (Defence to the counterclaim, mn. 290-294). The Court, like the Defendants, notes that claim 1 does not mention the method with which the HOMO values are to be calculated. Therefore, as already pointed out above (in the section Claim Construction), because claim 1 itself fails to define the calculation method to be used, the skilled person may choose from any appropriate method for calculating the HOMO value. The Court also agrees with the Defendants that a known product cannot be rendered novel by reciting a specific calculation method for measuring a physicochemical property which the known product already implicitly possesses. The contrary argument of the Claimant is not convincing. If the calculation method would render the eV value of a (for chemical and structural reasons necessarily existing) HOMO level novel, then novelty would have to be acknowledged based on the calculation method, not based on the (already existing) HOMO level.

That the HOMO value can be different for the same compound, depending on the calculation method, is also irrelevant. The HOMO and its energy level are inherent to the compound. If different calculation methods should lead to different HOMO values this would only show that a HOMO value is in fact one of those "physical or chemical properties that directly and necessarily derive from the claimed structural compound, composition or product, such as particle size, intrinsic viscosity, glass transition temperature, fineness of filaments or solubility" (recited in by the Claimant in its Rejoinder of 4 October 2024, mn. 36) which can have different values, based on the method for their determination (particle size being a model case for arriving at different values when applying different determination methods). Absent such determination method in the claim (like in the present claim 1), the term is rendered unclear with respect to the determination method. As present claim 1 fails to determine the calculation method, one may choose from any appropriate method for calculating the HOMO value, or just use the values provided by the patent in suit itself. These values must be considered as HOMO values according to claim 1 (see the section Claim Construction).

The Claimant also argues that there is no basis to hold that a skilled person would have regarded it a necessary, direct and unambiguous requirement to calculate the difference between the HOMOs of two specific compounds. The Claimant's position is at odds with the principles governing implicit disclosure laid out above: A feature is implicitly disclosed if, in carrying out the teaching of a prior-art document, the skilled person would inevitably arrive at a result falling within the terms of a claim. In the present case, any prior art image recording layer comprising an IR-absorbent and a polymerization initiator whose structures possess HOMO values that are not more than 0.60 eV

apart would inevitably be a composition fulfilling the criterion of feature 1.5.2., even if said HOMO values are not described in the prior art.

It is in particular not necessary to find for an inherent and thus implicit disclosure of a feature that said feature can be “deduced” from the explicit contents of a prior art document as alleged by the Claimant. It suffices that the feature in question is the inevitable result of carrying out the teaching of the prior art document. Applied on feature 1.5.2. of the present case, an implicit disclosure of the HOMO difference must therefore be acknowledged if carrying out the teaching of the prior art document will result in an image recording layer comprising an IR-absorbent and an electron-donating polymerization initiator which possess HOMO values whose difference is 0.60 eV or less.

Summarizing: a HOMO value is the clear and immediate consequence of the chemical structure of a compound. It might be different when calculated with different methods, but this is irrelevant here, as the claims are not restricted to a particular calculation method. As pointed out in the section Claim Construction, any calculation method may be used for the calculation of the HOMO value. HOMO values calculated with the method described in the patent in suit itself and HOMO values provided by the patent in suit itself are considered by the Court as HOMO values suitable for calculating the HOMO difference of feature 1.5.2. (compare the section Claim Construction). If these HOMO values belong to a prior art compound, they are inherent and thus implicit to said compound.

c) Lack of novelty over FBD-T20, FBD-T21 and FBD-T22 (Art. 54(1)(3) EPC)

Based on the above considerations, the Court comes to the conclusion that the subject-matter of Auxiliary Request 1 lacks novelty according to Art. 54(1) EPC over FBD-T20, FBD-T21, and FBD-T22, which are all prior art under Art. 54(3) EPC. As the subject-matter of Auxiliary Request 1 already lacks novelty over FBD-T20, FBD-T21, and FBD-T22, the Court sees no need for deciding on the other novelty attacks brought forward by the Defendants, which are based on EP 2 839 968 A1 (FBD-T19) and US 2004/0202957 A1 (FBD-T23).

It is uncontested that all features of amended claims 1-6 and 9-11 are realized by compositions and methods described in FBD-T20, FBD-T21, and FBD-T22, also in their combination, with the exception of feature 1.5.2.; said feature 1.5.2. is not explicitly disclosed by any of the prior art documents.

Thus, the only controversial question that must be resolved is the question whether feature 1.5.2 is implicitly disclosed by FBD-T20, FBD-T21, and FBD-T22. This is the case.

Feature 1.5.2. of amended claim 1 of Auxiliary Request 1 requires that the difference between the HOMO of the compound represented by Formula 1 (the IR-absorbent) and the HOMO of the electron-donating polymerization initiator is 0.60 eV or less.

In all three documents FBD-T20, FBD-T21, and FBD-T22, there are Examples and Comparative Examples for printing plate precursors whose image recording layer contains all the ingredients of amended claim 1. These are Examples 1, 8-11, 15, 21 and Comparative Examples 1 and 2 of FBD-T20; Examples 1, 7-9, 11-13 and Comparative Example 3 of FBD-T21; and Examples 1, 3, 5, 7-14, 16-21 and comparative examples 1-3 of FBD-T22:

The IR-absorbent used in these (Comparative) Examples is “K-3” (structure see, for example, par. [0398] of FBD-T20). It is uncontested that “K-3” is identical to “A-2” as shown in the patent in suit.

“A-2” is designated as a specific example of the compound of Formula 1 by the patent in suit (par. [0109]). Therefore, “K-3” is a compound of Formula 1, and the HOMO value of “K-3” is considered to be -5.35 eV, which is the HOMO value given in the patent in suit (compare p. 10, top right structure of the patent in suit).

In the same (Comparative) Examples the compound which corresponds to the “electron-donating polymerization initiator” is “R-1” (sodium tetraphenylborate; structure see, for example, par. [0400] of FBD-T20). It is uncontested that “R-1” is identical to “D-1” as shown in the patent in suit (p. 35). Therefore, as stated in the patent in suit, the HOMO value of “R-1” is considered to be -5.92 eV (compare p. 35, top left structure of the patent in suit). It is uncontested and clear from the patent in suit (par. [0137]-[0140]) that “D-1” is an electron-donating polymerization initiator.

It is also uncontested that the specific combination of “K-3” with “D-1” and all other ingredients listed in claim 1 of the patent in suit in an image recording layer composition of a lithographic printing plate precursor is explicitly and in isolation disclosed by said (Comparative) Examples.

Thus, each of the three documents FBD-T20, FBD-T21, and FBD-T22 describes specific compositions whose ingredients correspond to the combination of ingredients listed in granted claim 1.

Based on the HOMO values given in the patent in suit, the Defendants correctly calculated the HOMO difference of “K-3” and “R-1” to be 0.57 eV. This HOMO difference is below 0.60 eV, *ergo* below the value required by feature 1.5.2.

The crucial issue is whether this HOMO difference between the compound of Formula 1 (“K-3”) and the electron-donating polymerization initiator “R-1” is implicitly disclosed, even though none of the documents FBD-T20, FBD-T21, and FBD-T22 explicitly refers to the HOMO values of the compounds used therein, or to their HOMO difference.

Implicit disclosure means no more than the clear, immediate and unambiguous consequence of what is explicitly mentioned. As explained above, the HOMO value of a chemical compound is the inevitable result of the chemical structure and electron distribution of said compound and therefore is an inherent and thus implicit feature of said compound. The HOMO difference of two ingredients of a prior art composition is the clear, immediate and unambiguous consequence of their combination and their inherent HOMO values. It is hence implicit to the combination of said compounds.

Therefore, the combination of “K-3” with “R-1” in the cited (Comparative) Examples of FBD-T20, FBD-T21, and FBD-T22 will inevitably result in a composition comprising an IR-absorbent and an electron-donating polymerization initiator whose HOMO difference is less than 0.60 eV and which therefore fulfils the requirements of feature 1.5.2.

The Court also takes note that the Claimant itself finds it sufficient to merely point out that the SONORA plates accused of infringing the patent in suit contain a combination of the IR-absorbent A-2 (“K-3” in FBD-T20 to T22) with TPB (“R-1” in FBD-T20 to T22) to find the HOMO difference of feature 1.5.2. fulfilled. Thus, the Claimant itself takes the position that no additional requirement must be fulfilled to comply with the HOMO difference feature – it is sufficient that these two ingredients are present. Nothing else must apply to the compositions of the prior art containing the same two ingredients.

Summarizing, the Court arrives at the conclusion that the claimed HOMO difference is met by FBD-T20, FBD-T21, and FBD-T22 as immediate and inevitable consequence of the combination of the ingredients “K-3” and “R-1” in the compositions disclosed by these documents. The HOMO values are inherent properties of these compounds, and therefore the combination of these compounds will inevitably lead to a composition comprising an IR-absorbent and an electron-donating initiator whose HOMO difference is less than 0.60 eV and which therefore fulfils the requirement of feature 1.5.2. Whether a skilled person would be aware of said HOMO difference is of no relevance in this regard.

Therefore, amended feature 1.5.2. of Auxiliary Request 1 is inherent to all specific compositions disclosed by FBD-T20, FBD-T21, and FBD-T22 which contain a combination of “K-3” with “R-1” (in Examples 1, 8-11, 15, 21 and Comparative Examples 1 and 2 of FBD-T20; in Examples 1, 7-9, 11-13 and Comparative Example 3 of FBD-T21; in Examples 1, 3, 5, 7-14, 16-21 and Comparative Examples 1-3 of FBD-T22).

All remaining features of the image recording layer composition of amended claim 1 of Auxiliary Request 1 are also disclosed in combination by each of FBD-T20, FBD-T21, and FBD-T22 in the cited Examples and Comparative Examples. A lithographic printing plate precursor comprising said composition is also disclosed by said documents.

The Claimant argues that all compositions described in each of FBD-T20, FBD-T21, and FBD-T22 contain particles as additional ingredient; this feature would be missing from claim 1 of Auxiliary Request 1. Therefore, the composition of claim 1, which lacks such particles, would not directly and unambiguously be disclosed to the skilled person. However, it is irrelevant that the compositions disclosed in the cited Examples and Comparative Examples contain additional ingredients. Claim 1 of Auxiliary Request 1 uses the “comprising” language for defining the composition of the image recording layer, thus allowing for additional ingredients.

Therefore, the subject-matter of claim 1 lacks novelty under Art. 54(1)(3) EPC over each of FBD-T20, FBD-T21 and FBD-T22.

The features of dependent claims 2-6 and 9-10 of Auxiliary Request 1 are (uncontestably) also disclosed by each of FBD-T20, FBD-T21, and FBD-T22 for at least one specific composition described in the cited Examples and Comparative Examples. Therefore, these claims also lack novelty under Art. 54(1), (3) EPC over each of these documents.

The subject-matter of independent method claim 11 of Auxiliary Request 1 also lacks novelty over each of FBD-T20, FBD-T21, and FBD-T22, as each of these documents (uncontestably) describes a method of preparing and developing a lithographic printing plate “on-press” as claimed, using the specific compositions described in the cited Examples and Comparative Examples.

III. Auxiliary Request 2

The amendments performed in claim 1 of Auxiliary Request 2 are as follows:

“A lithographic printing plate precursor comprising an image recording layer on a hydrophilic support, ~~characterized in that~~ wherein the image recording layer comprises a polymerization initiator, an infrared absorbent, a polymerizable compound, and an acid color former, wherein the polymerization initiator comprises a combination of two or more kinds of an

electron-accepting polymerization initiator,
wherein the two or more kinds of electron-accepting polymerization initiators are diphenyliodonium salt compounds substituted with an alkyl group,
wherein the infrared absorbent comprises a compound represented by the following Formula 1,
and
the difference between the HOMO represented by Formula 1 and the HOMO of at least one compound of the polymerization initiator is 0.60 eV or less [...]"

Unlike claim 4 in Auxiliary Request 1, claim 4 of Auxiliary Request 2 has not been amended from "the polymerization initiator is a borate compound" to "the polymerization initiator comprises a borate compound".

1. Admissibility under R. 30.1 RoP

The admissibility of Auxiliary Request 2 is contested by the Defendants under R. 30.1 RoP.

The Court considers Auxiliary Request 2 to be admissible under R. 30.1 RoP for the same reasons as for Auxiliary Request 1.

The requirements of R. 30.1 a) and c) RoP are met as the proposed amendments and the statement that the application to amend is made conditional are clearly contained in the Defence to the counterclaim for revocation.

The conditions of R. 30.1 b) RoP are doubtlessly fulfilled with regard to the question of infringement (Defence to the counterclaim for revocation, section B.IV.2 starting on p. 49), and with regard to Art. 123(2)(3) EPC and to the question of validity (Defence to the counterclaim for revocation, section C.III.3, p. 100-101). The explanations provided with regard to Art. 123(2)(3) EPC may just consist of references to the description of the patent as granted and to the original application, and of a statement that Art. 123(2)(3) EPC is not violated, but this suffices to fulfil the requirement of providing an "explanation" set by R. 30.1 b) RoP. With regard to the explanation why the amendments satisfy Art. 84 EPC the situation is the same as for Auxiliary Request 1 (see above). The explanation provided by the Claimant is incomplete as it lacks an explanation with regard to clarity, but not to such extent that this would justify a refusal of the Auxiliary Request as inadmissible.

Therefore, Auxiliary Request 2 is found admissible under R. 30.1 RoP.

The question whether the claims of Auxiliary Request 2 comply with Art. 123(2)(3) and Art. 84 EPC has to (and will) be decided separately (see below).

2. Compliance with Art. 123(2) EPC

Claim 1 of Auxiliary Request 2 contains the phrase "combination of two or more kinds of an electron-accepting polymerization initiator, wherein the two or more kinds of electron-accepting polymerization initiators are diphenyliodonium salt compounds substituted with an alkyl group".

The Parties disagree on whether this feature finds basis in the application as originally filed, as required by Art. 123(2) EPC.

Claim 4 of Auxiliary Request 2 requires that “the polymerization initiator [of claim 1] is a borate compound”. The Parties disagree on whether this requirement, when combined with the definition of the polymerization initiator as amended in claim 1, finds basis in the application as originally filed.

The Court finds that the amendment performed in claim 1 of Auxiliary Request 2 results in subject-matter which finds no basis in the application as originally filed, both for amended claim 1 and for claim 4 of Auxiliary Request 2, for the following reasons:

a) Legal considerations of the Court

Art. 123(2) EPC requires that a European patent may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as originally filed.

The correct question to be asked when evaluating compliance with Art. 123(2) EPC is whether the subject-matter of an amended claim is directly and unambiguously taught to the skilled person by the original application (UPC_CFI_131/2024 (LD The Hague), Order of 19 June 2024, mn. 3.4 – Abbott v Sibio; UPC_CFI_309/2023 (CD Paris), Decision of 5 November 2024, mn. 8.3. – NJOJ v Juul Labs).

A direct teaching requires that the subject-matter is originally taught as specific, clearly defined and recognizable individual embodiment, either explicitly or implicitly, without the necessity of applying any deductive skills. The correct question to be asked is therefore not whether a skilled person would merely consider the subject-matter of an amended claim as falling within the scope of an originally disclosed broader teaching, but whether the skilled person would immediately and without any doubt understand that said subject-matter of an amended claim is a specific, individualized embodiment which is also originally disclosed as such.

An unambiguous teaching requires that it has to be beyond doubt – not merely probable – that the claimed subject-matter of an amended claim was disclosed as such in the application as originally filed.

b) Evaluation of the attacks on amended claim 1 under Art. 123(2) EPC

Based on the above legal considerations, two questions have to be answered here:

1. Does the feature that the claimed polymerization initiator comprises a combination of two or more “kinds of electron-accepting initiator” which are both diphenyliodonium salt compounds substituted with an alkyl group contravene Art. 123(2) EPC?
2. Does the introduction of said feature have an effect on the construction of feature 1.5.2. such that it must be read on said diphenyliodonium salt compounds, and does such construction contravene Art. 123(2) EPC?

aa) Re-Construction of feature 1.5.2 and lack of basis therefore

Applying the principles on claim construction laid out above for the Main Request, the Court finds that feature 1.5.2. must be re-constructed in view of the amendment in claim 1. The resulting re-constructed feature 1.5.2. lacks basis in the application as originally filed.

The Defendants argue that amended claim 1 requires that the “polymerization initiator” of feature 1.2. comprises “two or more kinds of an electron-accepting initiator” which are diphenyliodonium salt “compounds”. Because of this wording (“compounds”), the reference of feature 1.5.2. to “at least one compound of the polymerization initiator” would be understood to pertain to at least one of said two or more “compounds” (Underlinings by the Court). The Claimant rebuts this argument by pointing out that feature 1.2. deliberately uses the word “comprises” which would allow for other initiator compounds (specifically: an electron-donating initiator) being present in addition to the electron-accepting initiators. Therefore, there would be no change in the meaning of feature 1.5.2. due to the amendment in claim 1.

The Court finds that the amendment to feature 1.2. results in a change in the understanding of feature 1.5.2. because the principle that the features of a claim have to be read in combination when construing the claim must be applied here:

A skilled person reading the amended claim would see that the only chemical “compounds” listed as mandatory ingredients of the polymerization initiator are electron-accepting initiators which are alkyl-substituted diphenyliodonium salt “compounds”. Reading this feature in combination with feature 1.5.2., the skilled person would conclude that the at least one “compound” of the polymerization initiator of feature 1.5.2. must be one of these mandatory chemical compounds and therefore a diphenyliodonium salt substituted with an alkyl group.

Thus, feature 1.5.2. of claim 1 of Auxiliary Request 2 is construed by the Court as: “the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one of the diphenyliodonium salt compounds substituted with an alkyl group which are comprised in the polymerization initiator is 0.60 eV or less”.

However, no original disclosure can be found in the application underlying the patent in suit wherein the polymerization initiator used to calculate the HOMO difference of feature 1.5.2. is an alkyl-substituted diphenyliodonium salt and wherein this calculation results in a HOMO difference of 0.60 eV or less.

For this first reason alone, amended claim 1 lacks basis in the application as originally filed.

bb) No basis for combining “two or more kinds of” with “diphenyliodonium salt compounds” substituted with an alkyl group” in amended claim 1

The second question to be answered is whether the original application directly and unambiguously teaches a combination of “two or more kinds of electron-accepting polymerization initiator” which are both diphenyliodonium salt compounds substituted with an alkyl group. This question is answered in the negative by the Court. The application does not contain direct and unambiguous, let alone explicit, information that the polymerization initiator may comprise a combination of two or more diphenyliodonium salts which are both substituted with an alkyl group.

None of the Examples shows a combination of two or more electron-accepting initiators, let alone a combination of two or more diphenyliodonium salts substituted with an alkyl group. Neither is there any pointer in this direction (by Examples or any other text).

The phrase “two or more kinds” is originally disclosed only once in connection with electron-accepting polymerization initiators in the original application text, namely in par. [0144]:

“[0144] The electron-accepting polymerization initiator may be used singly, or in combination of two or more kinds thereof.”

(Underlining added by the Court)

Said paragraph does not contain a direct connection between “two or more kinds” and “diphenyliodonium salt compounds substituted with an alkyl group”. The Claimant argues that the subsequent par. [0155] and [0157] provide basis for combining “two or more kinds thereof” with “diphenyliodonium salt compounds substituted with an alkyl group”. The relevant passages of these paragraphs read as follows:

“[0155] Preferable examples among the above electron-accepting polymerization initiators are [...] and an iodonium salt is particularly preferable from the viewpoint of printing durability.”

“[0157] Specifically, the iodonium salt compound is [...] more preferably, for example, a diphenyliodonium salt compound substituted with an alkyl group or an alkoxy group, or preferably an asymmetric diphenyliodonium salt compound.”

(Underlining added by the Claimant to emphasize the alleged basis)

This alleged basis is contested by the Defendants, who argue that the “two or more kinds of the electron-accepting initiator” to which par. [0144] refers are “different classes of electron-accepting initiators”. This would be evident from the paragraphs following par. [0144] which list various “classes” (a) to (k) of electron-accepting initiators (par. [0145] to [0154]). The term “two or more kinds” of par. [0144] would pertain to said different “classes” (a) to (k), not to compounds belonging to the same class. Thus, a combination of two “kinds” would have to be understood as a combination of compounds from two different classes (a) to (k), not a combination of two compounds belonging to the same class (k) (which encompasses diphenyliodonium salts).

The Claimant rebuts the Defendants’ argumentation by arguing that the word “kind” does not necessarily denote different substance classes of electron-accepting polymerization initiators in par. [0144]. In the opinion of the Claimant, “two kinds” of said initiator are merely “two compounds that are different from each other”. To support this interpretation, the Claimant cites several paragraphs of the original application wherein the term “two or more kinds” is used in connection with individual chemical compounds, for example par. [0128], [0177], and [0240]. Two or more kinds of electron-accepting initiators could therefore be selected from all the individual compounds belonging to any of the classes (a) to (k), and could therefore be two compounds belonging to the same class (k).

The Court does not find the Claimant’s arguments convincing.

Taking into account the disclosure of par. [0144], [0145], [0155], and [0157], the text of the original application suggests that the phrase “two or more kinds thereof” in par. [0144] means kinds of chemical classes like the example classes (a) to (k) that follow, rather than single compounds within these classes. Consequently, combining “two or more kinds” with “diphenyliodonium salt compound substituted with an alkyl group” would provide a new meaning to “two or more kinds” which does not find basis in the original application text.

At least, par. [0144] of the application is not formulated in such unambiguous manner that it would inevitably lead the skilled person to the conclusion that the “combination of two or more kinds” mentioned therein is intended to (also) pertain to two or more specific compounds falling within

the ambit of the same generic chemical class. Rather, when read in context with the immediately following par. [0145], the phrase “two or more kinds” seems to pertain to the classes (a) to (k) listed in said par. [0145], not to single compounds within these classes. The standard “beyond doubt” is therefore not met, because it seems doubtful that the skilled person would doubtlessly arrive at the claimed combination.

The exact wording of par. [0155] and [0157] also must be taken into account:

“[0155] Preferable examples among the above electron-accepting polymerization initiators are any oxime ester compound and any onium salt compound ...and an iodonium salt compound is particularly preferable....”

“[0157] Specifically, the iodonium salt compound is [...] more preferably, for example, a diphenyliodonium salt compound substituted with an alkyl group or an alkoxyl group...”

(Underlining added by the Court)

Par. [0155] recommends members of the classes (a) to (k) listed in the preceding paragraphs as preferable examples in singular form (“compound”, not “compounds”; “an iodonium salt compound”). In the subsequent par. [0157] it is then stated that “the iodonium salt compound [once more in singular form] is “for example, a diphenyliodonium salt compound substituted with an alkyl group”. This is also formulated in singular form (Underlinings by the Court). There is no teaching in the original text that “the” iodonium compound is more than just one (“the” being singular) iodonium compound.

In other words, par. [0157] must be understood to pertain to a single diphenyliodonium salt compound substituted with an alkyl group, not to a plurality thereof.

Finally, the wording “two or more kinds” points at a combination of different things, not at a combination of twice (or several times) the same thing (here: twice or several times the same chemical structure, namely an alkyl-substituted diphenyliodonium salt).

For these reasons, the Court comes to the conclusion that the combination of par. [0144] with par. [0157] of the original application does not directly and unambiguously teach “two or more kinds of diphenyliodonium salt compounds substituted with an alkyl group” as specific, clearly defined, and recognizable individual embodiment.

Even if, for the sake of argument, “two or more kinds” in par. [0144] were interpreted as pertaining to single compounds within the long list of different chemical classes listed as examples of the electron-accepting polymerization initiator in par. [0145] to [0154], such interpretation would not render the specific combination of two or more alkyl-substituted diphenyliodonium salts originally disclosed. Such understanding might encompass such specific combination, but it would still fail to teach the skilled person specifically this combination in a clearly defined and immediately recognizable manner. Even this understanding of the term “two or more kinds” would therefore not directly and unambiguously disclose a specific composition wherein the electron-accepting initiator comprises two or more diphenyliodonium salts substituted with an alkyl group.

Thus, there is no direct and unambiguous original teaching of a polymerization initiator comprising two or more electron-accepting initiators which are both diphenyliodonium salts substituted with an alkyl group.

For this second reason alone, amended claim 1 lacks basis in the application as originally filed.

Auxiliary Request 2 must therefore be refused because the amendment to claim 1 contravenes Art. 123(2) EPC. As the amendments in claim 1 of Auxiliary Request 2 contravene Art. 123(2) EPC for the first and second reasons indicated above, the Court sees no need to comment on the "selection from two lists" attack that was also brought forward by the Defendants.

cc) Claim 4 of Auxiliary Request 2 contravenes Art. 123(2) EPC

Claim 4 of Auxiliary Request 2 also creates an objection under Art. 123(2) EPC.

This claim requires that the polymerization initiator "is" a borate compound. This wording must be understood such that the (complete) polymerization initiator of amended claim 1, which includes at least two electron-accepting initiators, which are diphenyliodonium salts, would "be" a borate. Thus, the borate would have to be an electron-accepting initiator and a diphenyliodonium salt. This, however, is not the case, compare par. [0137] of the patent in suit: a borate is an electron-donating initiator, and is different from a diphenyliodonium salt (compare par. [0159] of the patent in suit). Consequently, the combination of claim 4 with amended claim 1 creates originally undisclosed matter, namely a borate which is an electron-acceptor and a diphenyliodonium salt.

Therefore, the amendment of Auxiliary Request 2 also contravenes Art. 123(2) EPC because it results in originally undisclosed matter.

3. Compliance with Art. 123(3) EPC

Art. 123(3) EPC is met by Auxiliary Request 2 because the scope of amended claim 1 (and consequently of all other claims, which are directly or indirectly dependent on claim 1) is clearly narrower than that of granted claim 1.

4. Clarity, conciseness and support under Art. 84 EPC

The amendments introduced into the claims of Auxiliary Request 2 contravene Art. 84 EPC.

As already pointed out above in connection with the Main Request, R. 30.1 RoP stipulates that the amendments to the claims do not contravene the requirements of Art. 84 EPC. Compliance with Art. 84 EPC can be examined with regard to the complete amendment of claim 1 of Auxiliary Request 2, as this amendment was in its entirety introduced from the description.

The contradiction between "borate" and "electron-accepting" already discussed under Art. 123(2) EPC above creates a clarity issue, because the electron-accepting initiators comprised in the composition of amended claim 1 cannot "be" a borate (which is an electron-donating initiator). Consequently, claims 4 and 5 when combined with claim 1 create a clarity issue and therefore contravene Art. 84 EPC.

Thus, the requirements of Art. 84 EPC are not met by Auxiliary Request 2.

5. Sufficiency (Art. 83 EPC)

Auxiliary Request 2 contravenes Art. 83 EPC for the same reasons underlying the decision that the

Main Request must be revoked as insufficiently disclosed pursuant to Art. 138(1)b) EPC.

Feature 1.5.2. of claim 1 of Auxiliary Request 2 is construed by the Court such that “the difference between the HOMO of the compound represented by Formula 1 and the HOMO of at least one of the diphenyliodonium salt compounds substituted with an alkyl group which are comprised in the polymerization initiator is 0.60 eV or less”.

However, as discussed above in the context of the Main Request, sufficiency of disclosure can only be acknowledged for embodiments wherein the polymerization initiator used to calculate the HOMO difference of feature 1.5.2. is an electron-donating polymerization initiator. The diphenyliodonium salt compounds characterizing feature 1.5.2. of Auxiliary Request 2 are electron-accepting initiators.

Therefore, at least independent claims 1 and 12 of Auxiliary Request 2 contravene Art. 83 EPC for the same reasons as discussed above for the Main Request under Art. 138(1)b) EPC.

Auxiliary Request 2 is therefore also refused because this request does not fulfill the requirements of Art. 83 EPC.

IV. Auxiliary request 3

The amendments performed in Auxiliary Request 3 are a combination of the amendments performed in Auxiliary Request 1 with the amendments performed in claim 1 of Auxiliary Request 2.

The amendments performed in claim 1 of Auxiliary Request 3 are as follows:

“A lithographic printing plate precursor comprising an image recording layer on a hydrophilic support, ~~characterized in that~~ wherein the image recording layer comprises a polymerization initiator, an infrared absorbent, a polymerizable compound, and an acid color former, wherein the polymerization initiator comprises an electron-donating polymerization initiator and an electron-accepting polymerization initiator, wherein the polymerization initiator comprises a combination of two or more kinds of an electron-accepting polymerization initiator, wherein the two or more kinds of electron-accepting polymerization initiators are diphenyliodonium salt compounds substituted with an alkyl group, wherein the infrared absorbent comprises a compound represented by the following Formula 1, and the difference between the HOMO represented by Formula 1 and the HOMO ~~of at least one compound~~ of the electron-donating polymerization initiator is 0.60 eV or less [...]”

Like in Auxiliary Request 1, granted claim 6 has been deleted and claim 4 has been amended from “the polymerization initiator is a borate compound” to “the polymerization initiator comprises a borate compound” as a consequence of the amendments in claim 1.

1. Admissibility (R. 30.1 RoP)

Regarding admissibility of Auxiliary Request 3, the Court finds that the same considerations apply as for Auxiliary Requests 1 and 2 with regard to the criteria for admissibility set by R. 30.1 RoP. R. 30.1 a) and c) RoP are clearly fulfilled and the incomplete explanation regarding Art. 84 EPC

provided by the Claimant is no sufficient reason to deny admission of Auxiliary Request 3 under R. 30.1 RoP.

2. Compliance with Art. 123(2) EPC

Amended claim 1 of Auxiliary Request 3 contravenes Art. 123(2) EPC for the same “second reason as amended claim 1 of Auxiliary Request 2” (compare section III.2.b.bb above). There is no basis for combining “two or more kinds” with “diphenyliodonium salt compounds substituted with an alkyl group” in the application as originally filed.

Therefore, Auxiliary Request 3 must be refused.

The objection regarding claim 4 of Auxiliary Request 3 brought forward by the Defendants is not convincing the Court. Claim 4 in Auxiliary Request 3 has been amended from “is” to “comprises”, which prevents an interpretation of said claim such that the borate must necessarily be one of the diphenyliodonium salts comprised in the polymerization initiator of claim 1.

V. Summary on the Application to Amend

Summarizing, all Auxiliary Requests filed by the claimant contravene at least one of Art. 123(2)(3), Art. 83, Art. 84, and Art. 54 EPC. The Application to Amend the Patent must therefore be refused, because the patent in suit cannot be maintained in part based on any one of the Auxiliary Requests.

Consequently, the patent in suit is revoked in its entirety.

D. Decision on the infringement action

The infringement action is unfounded.

Due to the invalidity of the patent in suit, the infringement action is without any basis as far as Germany is concerned.

A conviction for patent infringement in the United Kingdom was also not an option in the case at hand.

Even though the UK part of the patent in suit is not covered by the counterclaim for revocation and, at least at the time of the conclusion of the oral hearing, no revocation action has been filed in the UK, the validity of the patent in suit is a prerequisite for an injunction and further orders based on a finding of infringement. Although the UPC has no jurisdiction to rule on the validity of the UK part of the patent in suit, the invalidity of the patent in suit has been broadly discussed. In their Statement of Defense (see mn. 469), Defendants stated that the position on invalidity in the UK is not different from the situation under German law. Therefore, according to the Defendants, the EP (UK) is invalid for the same reasons as the EP (DE). However, as the Court has already explained in detail, the patent in suit is invalid under EPC law, both as to the Main Request and as to the Auxiliary Requests. On that basis, it would have been up to the Claimant to comment specifically on the differences between the Contracting Member States and the UK and to explain why these (possibly) lead to a different assessment of the validity of the UK part of the patent in suit. The Claimant has not done so. It must therefore be assumed that the grounds for invalidity set out in detail above also apply to the UK part of the patent in suit, irrespective of any differences between the Contracting Member States and the United Kingdom. Even if the Court cannot decide on the validity of the UK part of the patent in suit, and certainly cannot revoke that part, the infringement action cannot be successful in such a factual and legal situation.

There is no need for a stay of the proceedings pending on the validity of the UK-part of the patent in suit in the present case. The prerequisite for such a stay would be a pending revocation action in the UK, which is lacking (R. 295 RoP). The Court also finds that there is no legal basis for ordering the Defendants to bring such a revocation action in the United Kingdom.

The same applies to the extent that the Claimant seeks, in the alternative, a decision on the condition that the UK courts uphold the validity of the patent in suit. R. 118.2. RoP only provides for such a possibility where a revocation action is pending between the same parties before the Central Division or an opposition is pending before the European Patent Office. An analogy presupposes an unforeseen gap in the law where the interests are the same. There is no such unforeseen gap in the present case. Moreover, the cases mentioned in R. 118.2 RoP are characterised by the fact that parallel proceedings on validity are already pending. However, this is precisely what is lacking in respect of the United Kingdom. The interests are therefore not comparable.

To the extent that the ECJ in its *Solvay v. Honeywell* decision (C-616/10) and the Hof The Hague in *Longi v Hanwha* (ECLI:NL:GHDHA:2022:636) refer to the possibility of a provisional injunction, the jurisdiction of the Düsseldorf Local Division to order such provisional measures can be assumed in favour of the Claimant. However, the mere fact of opening up jurisdiction does not obviate the need to examine the conditions under which such measures may be ordered. In the present case, it cannot be established that the conditions for the ordering of provisional measures, as set out in Art. 62 UPCA and R. 211 RoP, are fulfilled.

Against this background, the prior use right relied on by the Defendants was not decisive. There was therefore no reason to give the Claimant any further opportunity to comment on the Defendants' new submissions in the Rejoinder on this issue.

E. Legal consequences

As a result of the revocation action, European Patent EP 3 594 009 B1 is to be revoked in the territory of all Contracting Member States in which the patent has effect.

The infringement action is dismissed.

The Claimant shall bear the costs of the infringement action and the counterclaim for revocation (Art. 69(1) UPCA).

Pursuant to Art. 69(1) UPCA, the costs shall be borne up to a ceiling determined in accordance with the Rules of procedure. In case of an amount of dispute of EUR 30,000,000,- (see II.2.(b)(4) of the Guidelines for the determination of the court fees and the ceiling for recoverable costs, adopted by the Administrative Committee on 24 April 2023, D - AC/09/24042023_E), the table adopted by the Administrative Committee on 24 April 2023 (D - AC/10/24042023_E) on the basis of R. 152.2 RoP provides for an upper limit for reimbursable costs of up to EUR 1,200,000,-. Taking into account the complexity and the scope of the case, it is justified to raise this ceiling by 25 % (Art. 2(1)(b) Scale of ceilings for recoverable costs adopted by the Administrative Committee on 24 April 2023) and therefore to EUR 1,500,000,-.

DECISION:

- A. The preliminary objection is rejected.
- B. The European patent EP 3 594 009 B1 is revoked in the territory of all Contracting Member States in which the patent has effect.
- C. The application to amend the patent in suit is dismissed.
- D. The infringement action is dismissed.
- E. The costs of the infringement action and the counterclaim for revocation are to be borne by the Claimant.
- F. The value in dispute for the infringement action and the counterclaim for revocation is set at EUR 15,000,000 each.
- G. The ceiling for recoverable costs for the infringement action and the counterclaim for revocation is set at EUR 1,500,000 in total.

DETAILS OF THE DECISION:

Main proceedings ACT_578607/2023, CC_3088/2024, CC_3090/2024 and CC_3093/2024

UPC-Number: UPC_CFI_355/2023

Subject of the Proceedings: Patent infringement action and counterclaim for revocation

Düsseldorf on 28 January 2025

NAMES AND SIGNATURES

Presiding Judge Thomas	
Legally qualified judge Dr Thom	
Legally qualified judge Lopes	
Technically qualified judge Dr Parchmann	
For the sub-registrar Boudra-Seddiki	

INFORMATION ON APPEAL:

An appeal against this decision may be brought before the Court of Appeal by any party whose claims have been unsuccessful, in whole or in part, within two months of service of the decision (Art. 73(1) UPCA, R. 220.1 (a) RoP, 224.1 (a) RoP).

INFORMATION ON ENFORCEMENT (Art. 82 UPCA, Art. 37(2) UPCS, R. 118.8, 158.2, 354, 355.4 RoP):

An authentic copy of the enforceable order will be issued by the Deputy-Registrar upon request of the enforcing party, R. 69 RegR.

INSTRUCTION TO THE REGISTRY:

A certified copy of the decision shall be sent to the European Patent Office and the German Patent and Trade Mark office as soon as the decision on the revocation action has become legally binding.

This decision was read in open court on 28 January 2025.

Presiding Judge Thomas