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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 15/277,095, 09/27/2016, Karl-Heinz Grosse Brinkhaus, BCM0054CT, 9508
Row 2: 48394, 7590, 09/29/2020, SERVILLA WHITNEY LLC, 33 WOOD AVE SOUTH, SUITE 830, ISELIN, NJ 08830
Row 3: EXAMINER, MAYEKAR, KISHOR
Row 4: ART UNIT, PAPER NUMBER, 1795
Row 5: NOTIFICATION DATE, DELIVERY MODE, 09/29/2020, ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* KARL-HEINZ GROSSE BRINHAUS, MARGRET NEUMANN,  
OLIVER JOHANNPOETTER, and PETER LUX

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Appeal 2019-006794  
Application 15/277,095  
Technology Center 1700

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Before TERRY J. OWENS, JEFFREY R. SNAY, and BRIAN D. RANGE,  
*Administrative Patent Judges.*

RANGE, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–8, 10, 11, 13, 14, and 16. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as BASF Coatings GmbH. Appeal Br. 3.

CLAIMED SUBJECT MATTER<sup>2</sup>

Appellant describes the invention as relating to “cathodically depositable electrocoat materials comprising bismuth compounds.” Spec. 1:11–14. Appellant describes one object of the invention as discovery of electrocoat materials comprising bismuth compounds with baking temperatures that are as low as possible. *Id.* at 2:29–32. Independent claims 1 and 11 are the independent claims on appeal. Claim 1 is illustrative, and we reproduce it below with emphasis added to certain key recitations:

1. A cathodically depositable electrocoat material produced by a process comprising mixing and homogenizing:

at least one binder,

at least one crosslinking agent, and

a bismuth nitrate crosslinking catalyst consisting of a water-insoluble basic bismuth nitrate,

**wherein the water-insoluble basic bismuth nitrate is the only metal nitrate** and the only crosslinking catalyst in the cathodically depositable electrocoat material and the cathodically depositable electrocoat material has a same or similar degree of crosslinking as an electrocoat material which contains a bismuth subsalicylate crosslinking catalyst at a baking temperature which is at least 5-10° lower than the electrocoat material which contains the bismuth subsalicylate crosslinking catalyst.

Appeal Br. 16 (Claims App.) (emphasis added). Claim 11 similarly recites a water-insoluble basic bismuth nitrate “wherein the water-insoluble basic

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<sup>2</sup> In this Decision, we refer to the Final Office Action dated February 5, 2019 (“Final Act.”), the Appeal Brief filed July 2, 2019 (“Appeal Br.”), the Examiner’s Answer dated August 19, 2019 (“Ans.”), and the Reply Brief filed September 18, 2019 (“Reply Br.”).

bismuth nitrate is the only metal nitrate and the only crosslinking catalyst in the cathodically depositable electrocoat material.” *Id.* at 17.

### REFERENCES

The Examiner relies upon the prior art below in rejecting the claims on appeal:

<u>Name</u>	<u>Reference</u>	<u>Date</u>
Lehmann et al. (“Lehmann”)	US 7,211,182 B2	May 1, 2007
Kojima et al. (“Kojima”)	US 2007/0089996 A1	Apr. 26, 2007

### REJECTIONS

The Examiner maintains the following rejections on appeal:

- A. Claims 1–8 and 10 under 35 U.S.C. § 102(b) as anticipated by or, alternatively, under 35 U.S.C. § 103(a) as obvious over Lehmann.  
Ans. 3.
- B. Claims 11, 13, 14, and 16 under 35 U.S.C. § 103(a) as obvious over Lehmann in view of Kojima. *Id.* at 5.

### OPINION

To resolve the issues before us on appeal, we focus on the Examiner’s findings and determinations that relate to the error Appellant identifies. The Examiner rejects claim 1 as either anticipated by Lehmann or obvious over Lehmann. Ans. 3. The Examiner rejects claim 11 as obvious over Lehmann in view of Kojima. For both rejections, the Examiner relies on Lehmann as teaching use of the claims’ recited “water insoluble” metal nitrate as the only metal nitrate. Ans. 3, 5 (citing Lehmann).

Appellant argues that Lehmann, read as a whole, teaches use of at least one *water-soluble* metal nitrate (in contrast to Appellant’s claims which require use of only *water-insoluble* metal nitrate in the electrocoat material). Appeal Br. 10–11. The preponderance of the evidence supports the Appellant’s position.

The Lehmann patent emphasizes use of at least one water-soluble metal nitrate including, for example, in its abstract and in its only independent claim. Lehmann Abstract (“the CED coating composition used contains at least one water-soluble metal nitrate”), 2:24–40 (summary of invention states composition “contains at least one water-soluble metal nitrate”), 3:55–56 (“[t]he metal nitrates are selected from among the water-soluble nitrates”), 7:25–9:37 (no example makes use of water-insoluble  $\text{Bi}_5\text{O}(\text{OH})_9(\text{NO}_3)_4$ ), 9:39–10:13 (claim 1 recites “wherein the CED coating composition used contains at least one water-soluble metal nitrate”). Lehmann explains advantages of water-soluble metal nitrates. *Id.* at 2:14–20 (identifying “simpler handling” as an advantage). Lehmann teaches adding metal nitrate “in the form of an aqueous solution” to an aqueous phase. *Id.* at 5:51–62.

To support that Lehmann teaches water-insoluble nitrate, the Examiner emphasizes Lehmann’s identification of basic  $\text{Bi}_5\text{O}(\text{OH})_9(\text{NO}_3)_4$  as an available metal nitrate. Ans. 6–7. The Examiner finds that  $\text{Bi}_5\text{O}_9\text{OH})_9(\text{NO}_3)_4$  is water-insoluble, and Appellant does not dispute the water-insolubility of this particular metal nitrate. The paragraph of Lehmann that identifies  $\text{Bi}_5\text{O}(\text{OH})_9(\text{NO}_3)_4$  states in full:

**The metal nitrates are selected from among the water-soluble nitrates of metals** from the group consisting of metals of atomic numbers 20 to 83, wherein chromium, arsenic, rubidium,

ruthenium, rhodium, palladium, cadmium, antimony, caesium, osmium, iridium, platinum, mercury, thallium and lead are excepted. The term “metal nitrate” used in the present description and in the claims should not be understood exclusively to denote a simple metal nitrate salt comprising metal cations and nitrate anions, but also includes compounds such as, for example, metal oxynitrates or nitrate compounds with counter-cations containing the relevant metal. Preferred nitrates are those of titanium, vanadium, iron, zinc, yttrium, zirconium, tin, cerium, neodymium or bismuth, in particular of yttrium, neodymium or bismuth, especially of bismuth. **Examples of bismuth nitrates are  $\text{Bi}(\text{NO}_3)_3$  and  $\text{Bi}_5\text{O}(\text{OH})_9(\text{NO}_3)_4$ .**

Lehmann 3:55–4:3 (emphases added). Although the last sentence of this paragraph supports the Examiner’s position, this statement is outweighed by the remainder of Lehmann (including, for example, the first sentence of the paragraph). Because Lehmann, as a whole, so strongly emphasizes use of a water-soluble nitrate, we agree with Appellant that a person of skill in the art would not have understood the last sentence of this paragraph as teaching or suggesting use of water-insoluble  $\text{Bi}_5\text{O}(\text{OH})_9(\text{NO}_3)_4$  as a sole metal nitrate in the Lehmann composition. *See, e.g.*, Reply Br. 2–3.

The Examiner’s treatment of dependent claims and use of the Kojima reference does not cure the error identified above. We, therefore, do not sustain the Examiner’s rejections.

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-8, 10	102(b) or 103(a)	Lehmann		1-8, 10
11, 13, 14, 16	103(a)	Lehmann, Kojima		11, 13, 14, 16
<b>Overall Outcome</b>				1-8, 10, 11, 13, 14, 16

REVERSED