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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZHUHAI COSMX BATTERY CO., LTD.,

Petitioner

V.

NINGDE AMPEREX TECHNOLOGY LTD.,

Patent Owner

IPR2025-00389

Patent 11,923,498

ORAL AND REALTIMED DEPOSITION OF

ULRICH VON SACKEN, PH.D.

NOVEMBER 25, 2025

TAKEN VIA ZOOM VIDEOCONFERENCE

JOB NO.: 607487

PAGES: 1 - 104

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ANNETTE PELTIER, CSR, CRR

1 ORAL, REALTIMED DEPOSITION OF ULRICH
2 VON SACKEN, PH.D., produced as a witness at
3 the instance of the Patent Owner, and duly
4 sworn, was taken in the above-styled and
5 numbered cause on NOVEMBER 25, 2025, from
6 10:00 a.m. to 1:01 p.m., before Annette
7 Peltier, CSR, Texas Certified Realtime
8 Reporter, in and for the State of Texas,
9 reported by machine shorthand pursuant to the
10 PTAB Rules of Civil Procedure and the
11 provisions stated on the record or attached
12 hereto.

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* * Exhibits Not Attached * *	

1 ULRICH VON SACKEN,

2 Having been first duly sworn, testified upon
3 his oath as follows:

4 EXAMINATION

5 BY MR. DOUGLAS:

6 Q. Good morning, Dr. von Sacken.
7 How are you?

8 A. Good, thank you.

9 Q. My name is Chris Douglas, and
10 I'll be talking with you for a -- for a good
11 portion of the day, so I'm looking forward to
12 it.

13 MR. DOUGLAS: Before we get
14 started and just as a matter of housekeeping,
15 I just wanted to note for the record that the
16 parties have agreed to take this deposition
17 remotely over video and that we're all in
18 physically different locations, including the
19 court reporter.

20 (BY MR. DOUGLAS)

21 Q. So Dr. von Sacken, can you please
22 state your full name and address for the

1 record?

2 A. My full name is Ulrich
3 von Sacken, and my current address is
4 Unit 104, 2319 Brother Avenue, Sidney British
5 Columbia, Canada.

6 Q. And -- and are you appearing for
7 this deposition from BC?

8 A. Yes.

9 Q. Well, good early morning for
10 you -- to you.

11 A. Yes.

12 Q. Dr. von Sacken, have you had your
13 deposition taken before?

14 A. Yes, I have.

15 Q. Roughly how many times have you
16 had your deposition taken?

17 A. About half a dozen times.

18 Q. And of those half a dozen times,
19 were any of those patent cases?

20 A. Yes.

21 Q. And about how many patent cases
22 have you been deposed in?

1 A. I think at least four of them
2 were patent cases.

3 Q. Okay. And in the cases where
4 you've been deposed, were any of those inter
5 partes review or post-grant review
6 proceedings before the patent trial and
7 appeal board like this one?

8 A. I believe so.

9 Q. Okay. And Dr. von Sacken, do you
10 recall what the most -- or the -- strike
11 that.

12 Dr. von Sacken, do you -- do you
13 recall the most recent case you were deposed
14 in?

15 A. Yes, I do recall the most recent
16 case, but that was not a patent case.

17 Q. Okay. Thank you.

18 And so what was the most recent
19 patent case that you were deposed in?

20 A. I think it would have -- there
21 were some cases that were dismissed before it
22 got to the deposition, so I'm trying to

1 remember if -- which one that was.

2 I'd have to look at my records to
3 be sure what the -- what the patent was.

4 Q. Fair enough.

5 And -- and do you -- do you
6 recall a recent patent case in which you were
7 deposed?

8 MR. FITZSIMMONS: Objection,
9 form.

10 A. Yes. Yeah, I'm sorry.

11 (BY MR. DOUGLAS)

12 Q. And -- and do you remember the
13 parties in the most recent case in which you
14 were deposed?

15 A. Yes. I believe they might have
16 been the same parties. Certainly CATL was --
17 or ATL. That's another confusing thing. ATL
18 has too many spinoffs, so there's patent
19 cases with Contemporary Amperex and then
20 there's just Amperex alone. So I've done
21 patent cases for both.

22 Q. And in the cases related to CATL

1 and ATL, were you representing CosMX as you
2 are in this proceeding?

3 MR. FITZSIMMONS: Objection to
4 form.

5 A. I was in one of the cases,
6 certainly.

7 (BY MR. DOUGLAS)

8 Q. And in the other cases that you
9 worked on for CATL and ATL, do you remember
10 which other parties you represented in those
11 cases?

12 MR. FITZSIMMONS: Objection,
13 form.

14 A. There was -- so I worked for ATL
15 against LG Chem, but that was some time ago;
16 and then I worked for another Chinese company
17 whose name escapes me. It was not CosMX --
18 against ATL.

19 (BY MR. DOUGLAS)

20 Q. And in this case, you are --
21 strike that.

22 And in this case, you were

1 retained by CosMX, correct?

2 A. Lawyers representing CosMX.

3 Q. Fair enough. Fair enough.

4 And prior to this case, were you
5 aware of petitioner CosMX?

6 MR. FITZSIMMONS: Objection,
7 relevance.

8 A. Well, there was one previous case
9 where I worked for CosMX, so I was aware of
10 them.

11 (BY MR. DOUGLAS)

12 Q. And outside of your work as an
13 expert witness for CosMX, have you done any
14 other work on behalf of CosMX?

15 A. No, I don't believe we've ever
16 crossed paths.

17 Q. Well, Dr. von Sacken, it sounds
18 like you've been through the deposition
19 process at least a few times; and so before
20 we get too far, I thought I would just remind
21 you of some of the ground rules.

22 I'm going to be asking you

1 questions today, and you're under oath to
2 answer them truthfully and to the best of
3 your ability.

4 Do you understand that?

5 A. I understand.

6 Q. And as you know, we have a court
7 reporter today; and although the court
8 reporter is not physically in the room with
9 any of us, I would ask that you please make
10 sure you respond verbally, so no head shakes
11 or "uh-huhs" so that the court reporter can
12 accurately transcribe your answers. Fair
13 enough?

14 A. Understood.

15 Q. Also, for the sake of the court
16 reporter, let's not try to talk at the same
17 time. I know that's always hard over video,
18 but I'll do my best to make sure you're
19 completely finished talking before I start
20 talking, and I'll ask that you wait until I'm
21 completely finished asking my question before
22 you start answering. Is that fair enough?

1 A. Okay.

2 Q. And if you don't understand one
3 of my questions, please let me know; but if
4 you do provide an answer, I will assume that
5 you understood the question. Is that fair?

6 A. Fair enough.

7 Q. And finally, we will take breaks
8 roughly every hour, but at any point feel
9 free to request a break. I only ask if
10 there's a question pending, that you answer
11 that question before we take a break. Is
12 that fair enough?

13 A. Fair enough.

14 Q. Just a little bit more
15 housekeeping before we get underway,
16 Dr. von Sacken.

17 Do you have any papers or
18 documents with you today?

19 A. I have the clean copies that my
20 lawyers sent on my desk --

21 Q. Okay.

22 A. -- for reference.

1 Q. And -- and just so we can be on
2 the same page, would you be willing to run
3 through the document -- the -- the documents
4 that -- that you have on your desk?

5 A. Yes. Well, I have a copy of my
6 declaration. I have the petition for inter
7 partes review. I have the patent owner's
8 preliminary response. I have the -- the file
9 wrapper for the patent prosecution. I have
10 my CV, and I have Exhibit 1, the patent;
11 Exhibit 5, Sato; Exhibit 6, which is whoever;
12 Exhibit 7, Oh; Exhibit 8 -- sorry, they're
13 actually Exhibits 1008, but I'm leaving off
14 the preface; so Exhibit 1008; Exhibit 1012,
15 Exhibit 1014, and the declaration of
16 Dr. Kaschmitter. That's it.

17 Q. And I believe you said,
18 Dr. von Sacken, that those were all clean
19 copies?

20 A. Yes, those are as received from
21 my lawyers.

22 Q. And Dr. von Sacken, did you

1 receive a link for downloading exhibits prior
2 to -- prior to this deposition?

3 A. Not for this deposition.

4 Q. Okay.

5 A. In the past I have.

6 Q. So what -- we'll put into the
7 chat, Dr. von Sacken, the -- the file share
8 site -- I expect that -- or at least what I
9 will -- what I'll represent to you is I will
10 put the exhibits as we are talking about them
11 into that file share site. You're welcome
12 to -- you know, unless your counsel has an
13 objection, to use either the electronic copy
14 or the copies that -- that -- that you have
15 with you today. Is that fair enough?

16 A. Fair enough.

17 Q. Okay. All right.

18 Dr. von Sacken, do you understand why you are
19 here today?

20 A. To give my deposition.

21 Sorry, Chris, I don't see the
22 link yet in the chat.

1 Q. Okay. I just asked my colleague
2 to drop it in there.

3 A. Okay. I don't need it now,
4 though.

5 Q. Okay. Well, we'll just keep an
6 eye on it; and when we turn to an exhibit, if
7 it's not there, we can take a break and make
8 sure you have full access to it, if that's
9 all right.

10 A. That's fine.

11 Q. Okay. And so, Dr. von Sacken,
12 you understand that you're here to give your
13 deposition in IPR 2025-00389 related to U.S.
14 Patent Number 11,923,498, correct?

15 A. That's correct.

16 Q. And for the purposes of the
17 record, will you describe your preparations
18 for the deposition today, Dr. von Sacken?

19 A. So prior to -- to prepare for
20 this deposition, I reviewed my declaration
21 multiple times and the supporting documents
22 that we referred to in the declaration, the

1 patent itself, the patent owner's response,
2 Dr. Kaschmitter's report; and that was done
3 partly on my own, but also in several
4 preparatory video calls with counsel for
5 CosMX.

6 Q. And Dr. von Sacken, about how
7 long would you say you spent preparing for
8 this deposition?

9 A. All told, it's probably around
10 ten hours.

11 Q. And you mentioned in one of your
12 previous answers that you had some video
13 calls with counsel; is that correct?

14 A. Yes.

15 Q. And do you recall who was present
16 during those video calls with counsel?

17 A. That was Jason Fitzsimmons, Chase
18 Hammond, and one other counsel -- John, I
19 think. I can't remember his name right now.
20 I can look it up in the e-mail links, but...

21 Q. That's okay, Dr. von Sacken. I
22 appreciate your answer.

1 And was anyone who was not
2 counsel present during any of those video
3 calls?

4 A. No.

5 Q. And then just taking a step back,
6 Dr. von Sacken, with respect to -- to this
7 case and this IPR, do you recall when --
8 when, about, you were engaged?

9 A. For this case, I think it was
10 maybe December of 2024 when I was first
11 contacted.

12 Q. And do you recall who first
13 contacted you?

14 MR. FITZSIMMONS: Objection to
15 the extent it might reveal privileged
16 communications.

17 A. I -- I can't recall who precisely
18 contacted me first. I did most of my work
19 with -- with Chase Hammond.

20 (BY MR. DOUGLAS)

21 Q. And Dr. von Sacken, do you recall
22 preparing the -- your declaration in this

1 case, Exhibit 1003?

2 A. 1003; which one is -- sorry, what
3 is it called?

4 Q. I'm sorry if I misspoke. I was
5 referring to your declaration, Exhibit 1003.

6 A. Okay. Right, that's --

7 Q. Right.

8 A. -- that's Number 3. Okay.

9 Q. And sorry, Dr. von Sacken, do you
10 recall preparing your declaration, which has
11 been marked as Exhibit 1003 in this case?

12 A. Oh, yes, I certainly do.

13 Q. And do you recall about how much
14 time you spent preparing your declaration?

15 A. So it's almost been a year, but
16 off-the-cuff, I would estimate that it would
17 be 40, 50 hours, at least. I'd have to look
18 at my records to give you an exact number.

19 Q. And when you were preparing the
20 declaration -- your declaration in this case,
21 Dr. von Sacken, did you have any meetings
22 with -- with counsel?

1 A. Yes, we had multiple meetings.

2 Q. And Dr. von Sacken, do you recall
3 who wrote the first draft of -- of your
4 declaration, Exhibit 1003?

5 MR. FITZSIMMONS: Objection,
6 form.

7 A. The -- it was an iterative
8 process; so the very roughest draft was
9 probably from the -- from counsel's side
10 that that was put together.

11 (BY MR. DOUGLAS)

12 Q. And then, apologies,
13 Dr. von Sacken; I think that link is now
14 available to you in the chat.

15 A. Yes, it is.

16 Q. I didn't realize I started
17 talking about the declaration, not the...

18 And so we're going to put your
19 declaration, Exhibit 1003, and the patent at
20 issue, Exhibit 1001, into the share site.

21 But it's my understanding,
22 Dr. von Sacken, that you have both of those

1 documents with you today?

2 A. Yes, I have my declaration -- and
3 sorry, what was the other document?

4 Q. The other was the patent at
5 issue.

6 A. Yes.

7 Q. Patent Number 11,923,498.

8 A. Yes, I have both of those, paper
9 copies.

10 Q. And just for your records,
11 Dr. von Sacken, those documents are also
12 available at the share site if you would like
13 to use those copies.

14 A. Understood.

15 Q. Okay. Dr. von Sacken, for ease
16 of our conversation today, would it be okay
17 if we refer to the patent at issue as the
18 '498 patent?

19 A. That would be fine.

20 Q. And just for the record, when we
21 refer to the '498 patent, we're referring to
22 U.S. Patent Number 11,923,498, which has been

1 marked as Exhibit 1001, correct?

2 A. Correct.

3 Q. Okay. And then for ease of our
4 discussion, Dr. von Sacken, would it be okay
5 to refer to your declaration as just your
6 declaration?

7 A. That would be fine.

8 Q. Okay. And just for the record,
9 your declaration has been marked as
10 Exhibit 1003 in this proceeding.

11 All right. So Dr. von Sacken, in
12 preparation of your declaration, you reviewed
13 claims 1 through 22 of the '498 patent,
14 correct?

15 A. Correct.

16 Q. Okay. And it's my understanding,
17 Dr. von Sacken, that you did not provide any
18 particular terms for construction; is that
19 correct?

20 MR. FITZSIMMONS: Objection,
21 form.

22 A. That's correct.

1 (BY MR. DOUGLAS)

2 Q. If I could turn you,
3 Dr. von Sacken, in your declaration to
4 paragraph 20, which is on Page 12 of the --
5 of the paper copy.

6 A. Okay. I have it here.

7 Q. And so at the bottom of -- of
8 paragraph 20, you say: "I have followed this
9 approach in my analysis, and for all of the
10 claim terms considered in this declaration, I
11 have applied the plain and ordinary meaning
12 of those terms."

13 Do you see that?

14 A. I do.

15 Q. And so for all of the terms in
16 the claims of the '498 patent, you've applied
17 a plain and ordinary meaning, correct?

18 A. Correct.

19 Q. All right. I'd like you to turn
20 to claim 1 of the '498 patent. I believe you
21 have Exhibit 1001 in front of you, as -- as
22 well.

1 A. Yes.

2 Q. And so looking now at claim 1 of
3 the '498 patent, you see that claim 1 starts
4 at column 10, line 41?

5 A. Yes.

6 Q. And if you look down into claim 1
7 at about column 10, line 48, do you see the
8 term, "a first recess"?

9 A. Yes.

10 Q. And did you provide a claim
11 construction for the term "recess" as it's
12 used in claim 1, column 10?

13 A. No.

14 Q. Okay. And so would it be fair to
15 say that you applied the plain and ordinary
16 meaning of the term "recess" as it's used in
17 claim 1, column 10, line 48?

18 A. I applied the plain and ordinary
19 meaning, as I understand it.

20 Q. And what is your understanding of
21 the plain and ordinary meaning of the claim
22 term "recess"?

1 MR. FITZSIMMONS: Objection,
2 form.

3 A. To me, the term "recess" here
4 would mean a recess in the coating in the
5 thickness direction to expose bare foil.

6 (BY MR. DOUGLAS)

7 Q. And in your understanding of the
8 plain and ordinary meaning of the term
9 "recess," would you expect coating on each
10 side of the recess in the width direction?

11 MR. FITZSIMMONS: Objection,
12 form.

13 A. Not necessarily. The recess
14 could be at the end of an electrode.

15 (BY MR. DOUGLAS)

16 Q. And where else could a recess be
17 other than the end of an electrode?

18 MR. FITZSIMMONS: Objection,
19 form, vague.

20 A. It could be anywhere you want to
21 expose foil to attach a tab, so there's no
22 limit; either side from one end to the other.

1 (BY MR. DOUGLAS)

2 Q. So if we could turn to paragraph
3 376 of your declaration, Dr. von Sacken.

4 I apologize, I flipped the
5 numbers. 367, Dr. von Sacken.

6 A. 367.

7 Q. Yes.

8 A. And --

9 Q. It should be on Page 238 of the
10 paper copy.

11 A. Yeah, I have it here.

12 Q. Okay. I apologize for the
13 confusion.

14 So I believe that -- that you
15 said, Dr. von Sacken, that a recess could be
16 at the end of an electrode; is that -- is
17 that fair?

18 A. That's fair.

19 Q. Okay. In your declaration at
20 paragraph 367, it -- you are talking about
21 the Takemura reference here; is that correct?

22 A. Yes.

1 Q. And in paragraph 367, you say,
2 "Takemura does not disclose a first recess in
3 the positive active material layer 3 for
4 accommodating the positive lead"... "coupled
5 to the positive current collector 5."

6 Do you see that?

7 A. I do.

8 Q. And as shown in Figures 8 and 9
9 as you've represented in your declaration
10 above paragraph 367, doesn't Takemura show a
11 first recess at the end of an electrode?

12 A. Yes, he does.

13 MR. FITZSIMMONS: Objection,
14 form.

15 A. I -- in paragraph 367, I should
16 have qualified that to say "doesn't show a
17 first recess in the center of the electrode";
18 but unfortunately, that was left out.

19 (BY MR. DOUGLAS)

20 Q. So turning back to -- well,
21 strike that.

22 At the top of Page 238 is claim

1 language from claim 1 that you've annotated
2 as [1.B].

3 Do you see that?

4 A. Yes.

5 Q. And so looking at claim [1.B] as
6 you've noted it, is it your understanding
7 that claim [1.B] requires a first recess to
8 be in the center of an electrode?

9 MR. FITZSIMMONS: Objection,
10 form; calls for a legal conclusion.

11 A. Claim 1 hasn't gotten to claiming
12 the central location yet.

13 (BY MR. DOUGLAS)

14 Q. And so, Dr. von Sacken, I'm just
15 trying to understand your answer when I asked
16 you about paragraph 367.

17 You had said that you should have
18 qualified that Takemura doesn't show a first
19 recess in the center of the electrode, and
20 I'm trying to understand whether claim
21 limitation [1.B] requires that first recess
22 to be in the center of the electrode.

1 A. Claim 1 does not --

2 MR. FITZSIMMONS: There's no
3 question pending there, Counsel; so
4 objection, form.

5 MR. DOUGLAS: Yeah. Fair
6 enough.

7 A. Sorry, can you repeat the
8 question?

9 (BY MR. DOUGLAS)

10 Q. Yes.

11 Dr. von Sacken, why do you say
12 that you should have qualified that Takemura
13 doesn't show a first recess in the center of
14 the electrode in paragraph 367?

15 MR. FITZSIMMONS: Objection,
16 form.

17 A. Because in other claims, perhaps
18 not claim 1, the patent claims the central
19 location; and that's what I believe I meant
20 at this point, is that the bare foil is not
21 in a central location.

22 (BY MR. DOUGLAS)

1 Q. Okay. Turning back to claim 1 --
2 I believe that you still have the '498 patent
3 and -- and claim 1 in front of you,
4 Dr. von Sacken?

5 A. Yes.

6 Q. And so if we look at column 10,
7 line 55, you see a term, "a second recess."
8 Do you see that?

9 A. Yes.

10 Q. And did you provide a
11 construction for the term "a second recess"
12 in your declaration, Exhibit 1003?

13 A. No, I don't believe so.

14 Q. And did you apply the plain and
15 ordinary meaning of "a second recess" when
16 preparing your declaration, Exhibit 1003?

17 A. Yes.

18 Q. And what is the plain and
19 ordinary meaning of "a second recess," as you
20 used it in preparing your declaration,
21 Exhibit 1003?

22 A. As for the first recess, I would

1 interpret it to mean an area where the
2 coating is removed to expose bare foil,
3 creating a recess in the thickness direction.

4 Q. And looking now at claim 1 in the
5 clause starting at line 54, it recites: "The
6 negative electrode active material layer
7 being provided with a second recess
8 accommodating a negative lead being coupled
9 with the negative current collector."

10 Did you interpret the second
11 recess as being in the middle?

12 MR. FITZSIMMONS: Objection,
13 form.

14 THE COURT REPORTER: I'm sorry,
15 guys. Y'all talked over each other. You can
16 look at your realtime to see what I got.

17 (BY MR. DOUGLAS)

18 Q. Let me start that over again.

19 So we -- Dr. von Sacken, looking
20 at claim 1 in the clause starting at line 54,
21 it recites, "The negative electrode active
22 material layer being provided with a second

1 recess accommodating a negative lead being
2 coupled with a negative current collector."

3 Did you interpret the second
4 recess as being in the middle of the negative
5 electrode active material layer?

6 MR. FITZSIMMONS: Objection,
7 form.

8 A. Again, in general terms, I would
9 say a recess could be anywhere along the
10 electrode, not necessarily in the middle.

11 (BY MR. DOUGLAS)

12 Q. But in your analysis of claim 1,
13 Dr. von Sacken, you interpreted the second
14 recess as recited in claim 1 as being in the
15 middle, correct?

16 MR. FITZSIMMONS: Objection,
17 form; objection, mischaracterizes the
18 witness' testimony.

19 A. I interpreted it that way because
20 the further claims in the patent are about
21 centrally-located tabs. I got ahead of
22 myself.

1 (BY MR. DOUGLAS)

2 Q. And in -- if you could turn to
3 paragraph 379, Dr. von Sacken; that's on
4 Page 244 of your expert declaration.

5 A. I have it here.

6 Q. In paragraph 379 you state that,
7 "Takemura does not disclose a second recess
8 in the negative active material layer 4 for
9 accommodating the negative lead 2 coupled to
10 the negative current collector 6," correct?

11 A. That's what I said in 379.

12 Q. Okay. And Takemura discloses a
13 second recess at the end of its negative
14 active material layer 4, correct?

15 A. Yes.

16 MR. FITZSIMMONS: Objection,
17 form.

18 A. Again, I should have qualified it
19 as he doesn't disclose it at the center of
20 the electrode.

21 (BY MR. DOUGLAS)

22 Q. All right. Dr. von Sacken, do

1 you -- I believe that you said that you had
2 Exhibit 1005 with you.

3 A. Yes.

4 Q. I think you referred to it as the
5 "Sato reference."

6 A. I have it here.

7 Q. Okay. And just for ease of our
8 discussion, Dr. von Sacken, would it be fair
9 for me to refer to Exhibit 1005, which is
10 U.S. Patent Publication Number 2011/0111276,
11 as "Sato"?

12 A. That's fine.

13 Q. Okay. And Dr. von Sacken, you
14 relied on the Sato reference when preparing
15 your declaration?

16 A. Yes, I did.

17 Q. And do you recall,
18 Dr. von Sacken, whether you found the Sato
19 reference or whether it was provided to you
20 by counsel?

21 MR. FITZSIMMONS: Objection,
22 form; and objection -- to the extent the

1 answer would reveal privileged
2 communications, I would caution the witness.

3 THE WITNESS: So am I allowed
4 to answer?

5 MR. FITZSIMMONS: You can
6 answer to the extent it wouldn't reveal any
7 privileged communications.

8 A. I believe counsel found this
9 reference.

10 (BY MR. DOUGLAS)

11 Q. And Dr. von Sacken, you've
12 reviewed the -- the Sato reference?

13 A. Yes.

14 Q. So I'd like to turn to paragraph
15 94 of the Sato reference, please.

16 A. I have it here.

17 Q. And so starting at the top of
18 paragraph 94, do you see where Sato says
19 "Suppose in the length direction of the
20 electrode plate, the start point is 0, the
21 endpoint is 1, and zero is the start end of
22 winding of the electrode group, this lead

1 attachment position is preferably located in
2 the range from 1/4 to 3/4."

3 Do you see that?

4 A. Yes.

5 Q. And what is your understanding of
6 Sato's disclosure with regard to placement of
7 a lead in the attachment position in the
8 range of 1/4 to 3/4?

9 MR. FITZSIMMONS: Objection,
10 form.

11 A. Basically, Sato is saying that
12 it's preferable to attach the lead in the
13 middle portion of the electrode.

14 (BY MR. DOUGLAS)

15 Q. Okay. And while we discuss Sato,
16 would it be fair to refer to the middle
17 portion of a particular electrode plate as
18 the location in the range of 1/4 to 3/4 as
19 it's used in paragraph 94?

20 A. Fair.

21 Q. And then Sato continues in
22 paragraph 94 and says, "With this structure,

1 the internal volume can be effectively
2 utilized and sufficient current collection
3 can be achieved."

4 Do you see that?

5 A. Yes.

6 Q. And then it says, "This structure
7 is effective especially for a cylindrical
8 battery."

9 Do you see that?

10 A. Yes.

11 Q. And then it says, "It is
12 sufficient that at least one of the positive
13 electrode and the negative electrode satisfy
14 the above conditions for the lead attachment
15 position."

16 Do you see that?

17 A. Yes.

18 Q. And is it your understanding that
19 Sato is, therefore, describing an embodiment
20 where a lead can be attached in the middle
21 portion of a positive electrode and not in
22 the middle position of the negative

1 electrode?

2 MR. FITZSIMMONS: Objection,
3 form; compound question.

4 A. I'll try to answer that.

5 Sato says it's sufficient for at
6 least one to be in the middle portion; so
7 he's contemplating the possibility of the
8 positive being in the center, the negative
9 being in the center, or both being in the
10 center.

11 (BY MR. DOUGLAS)

12 Q. Okay. So Dr. von Sacken, it's
13 your opinion that Sato is disclosing three
14 different options: A first option where the
15 positive lead is in the center portion, a
16 second option where the negative lead is in
17 the center portion, and a third option where
18 both the positive and negative lead is in the
19 center portion?

20 MR. FITZSIMMONS: Objection,
21 form.

22 A. Okay. That -- I agree with that.

1 (BY MR. DOUGLAS)

2 Q. Okay. And then in -- in
3 paragraph 94, Sato continues and says, "The
4 other lead is preferably attached to a
5 position at which a short-circuit between the
6 leads does not easily occur and a battery is
7 easily fabricated."

8 Do you see that?

9 A. Yes.

10 Q. And then Sato concludes: "For
11 example, in a cylindrical battery, if the
12 positive electrode lead is attached to a
13 portion near a middle portion in the length
14 direction of the electrode plate, the
15 negative electrode lead is preferably located
16 near the outermost portion of the negative
17 electrode in terms of the battery structure."

18 Do you see that?

19 A. Yes.

20 Q. And so in the -- in the example
21 provided in paragraph 94, will you tell me
22 the -- the position of the positive lead and

1 the negative lead?

2 MR. FITZSIMMONS: Objection,
3 form.

4 A. I wouldn't characterize paragraph
5 94 as an example. It's just discussing in
6 general terms the placement of the leads.
7 (BY MR. DOUGLAS)

8 Q. And so in the last sentence of
9 paragraph 94, the positive electrode lead is
10 attached at a position near a middle portion
11 in the length direction of the electrode
12 plate, correct?

13 A. Yes.

14 Q. And in the last -- in the example
15 in the last sentence of paragraph 94, the
16 negative electrode lead is placed at an end
17 of the negative electrode, correct?

18 MR. FITZSIMMONS: Objection,
19 form; and mischaracterizes the exhibit.

20 A. Sato says preferably, but not
21 necessarily, regarding the positioning of the
22 negative lead. Sato also points out that the

1 central location of the leads reduces the
2 electrode current resistance; so that benefit
3 would be greatest if they were both in the
4 center. There's always trade-offs in
5 lithium-ion batteries.

6 (BY MR. DOUGLAS)

7 Q. When Sato says in paragraph 94
8 "The negative electrode lead is preferably
9 located near the outermost portion of the
10 negative electrode," where is the outermost
11 portion of the negative electrode,
12 Dr. von Sacken?

13 MR. FITZSIMMONS: Objection,
14 form; calls for speculation.

15 A. So Sato's saying he wants to
16 avoid short-circuits between the electrodes.
17 So he says one way of doing that is if you
18 have a centrally-located positive lead, you
19 put the negative lead at the end; but it's
20 not necessary to move it that far. You only
21 have to move it half a turn, which would
22 leave it almost centrally-located.

1 (BY MR. DOUGLAS)

2 Q. Do you see the term "outermost
3 portion" in paragraph 94 in the last
4 sentence, Dr. von Sacken?

5 A. I do.

6 Q. What is your understand- --

7 MR. FITZSIMMONS: Form.

8 (BY MR. DOUGLAS)

9 Q. -- what is your understanding of
10 the term "outermost portion" as it's used by
11 Sato in paragraph 94?

12 MR. FITZSIMMONS: Objection,
13 form.

14 A. So Sato's saying that if you want
15 to be absolutely sure there's no shorts, you
16 can move the negative electrode all the way
17 to the end of the electrode so that it's no
18 longer in the center.

19 (BY MR. DOUGLAS)

20 Q. Can we turn to paragraph 111,
21 Dr. von Sacken?

22 A. Okay. I have it.

1 Q. And actually, can we just take a
2 quick step back? I'm going to ask you a
3 couple of questions about paragraph 111,
4 Dr. von Sacken, but I think paragraphs 111
5 through 113 all go together. So if you want
6 to take a moment and just familiarize
7 yourself with those paragraphs, that might be
8 helpful.

9 A. Okay. Okay. I think I'm ready.

10 Q. Okay. And I know you're familiar
11 with -- with this reference, Dr. von Sacken,
12 but the -- for fairness, the discussion of
13 batteries 1 through 4 starts at paragraph 99,
14 just so you have that in mind.

15 Have you had a chance to review
16 what you wanted to, Dr. von Sacken?

17 A. Yes.

18 Q. Okay. And so when we look at
19 paragraph 111, it starts with: "In the
20 positive electrode plate described above" --

21 Do you see that?

22 A. Yes.

1 Q. Okay. It continues, "the
2 positive electrode material mixture layer was
3 peeled off from the surface of the positive
4 electrode current collector connected to the
5 lead such that a portion where the positive
6 electrode current collector was exposed had a
7 width of 8 millimeters from the position of
8 278 millimeters to the position of
9 286 millimeters in the length direction
10 relative to the end," and then it continues.

11 Do you see that?

12 A. Yes.

13 Q. And so in paragraph 111, is it
14 fair to say that Sato defines a recess of 8
15 millimeters in width?

16 A. Yes.

17 MR. FITZSIMMONS: Objection,
18 form.

19 (BY MR. DOUGLAS)

20 Q. And in paragraph 111, Sato
21 positions the recess having "a width of 8
22 millimeters" at the "position of

1 278 millimeters to the position of
2 286 millimeters in the length direction
3 relative to the end," correct?

4 A. Correct.

5 Q. And Dr. von Sacken, trying to use
6 the term that you used before, which I
7 believe was "middle portion," would you
8 consider a recess with the width of 8
9 millimeters from the position of
10 278 millimeters to the position of
11 286 millimeters in the length direction
12 relative to the end to be the "middle
13 portion," as you've used it today?

14 MR. FITZSIMMONS: Objection,
15 form; compound question; vague.

16 A. I believe that's correct.

17 (BY MR. DOUGLAS)

18 Q. All right. Dr. von Sacken, I --
19 I had the understanding that we had defined
20 the term "middle portion" based on Sato's
21 disclosures in paragraph 94.

22 Is that still a fair

1 understanding?

2 A. That's my understanding.

3 Q. Okay. And turning back to
4 paragraph 111, is the portion where the
5 positive electrode current collector was
6 exposed in the middle portion of the positive
7 electrode current collector?

8 MR. FITZSIMMONS: Objection,
9 form.

10 A. Yes, I would say it is.

11 (BY MR. DOUGLAS)

12 Q. Okay. And then, Dr. von Sacken,
13 if you could go down in paragraph 111 about
14 ten lines, still on that same page, there's a
15 paragraph that's -- or a sentence that
16 starts, "In the negative electrode plate."

17 Do you see that?

18 A. Yes.

19 Q. Okay. And it states, "In the
20 negative electrode plate, the position
21 connected to the lead was located at the
22 outermost portion of the negative electrode

1 plate."

2 Do you see that?

3 A. Yes.

4 Q. And then paragraph 111 continues,
5 and it says, "The surface where the lead
6 connection portion was exposed in the
7 negative electrode plate was located at the
8 end (i.e., the outermost portion) thereof."

9 Do you see that?

10 A. Yes.

11 Q. And so when we're looking at
12 paragraph 111, is it your understanding,
13 Dr. von Sacken that we're talking about an
14 arrangement of recesses where the positive --
15 strike that. Let me take a step back.

16 Is it your understanding of
17 paragraph 111 that the recess on the negative
18 electrode plate is located at the end of that
19 negative electrode plate?

20 MR. FITZSIMMONS: Objection,
21 form.

22 A. Yes.

1 (BY MR. DOUGLAS)

2 Q. Okay. And Dr. von Sacken, a
3 little while ago when we were talking about
4 paragraph 94 of the Sato reference, we talked
5 about three different arrangements of
6 recesses that are -- that you say are
7 disclosed in Sato.

8 Do you remember that?

9 A. Yes.

10 Q. And when we are applying those
11 three different arrangements to paragraph
12 111, how would you characterize the position
13 of the recesses in both the positive
14 electrode plate and the negative electrode
15 plate?

16 MR. FITZSIMMONS: Objection,
17 vague; compound question.

18 A. So as described in paragraph 111,
19 Sato says the positive lead is attached in
20 the middle portion and the negative portion
21 is attached at the outer end.

22 (BY MR. DOUGLAS)

1 Q. And then if we could turn to
2 paragraph 112 of Sato; and paragraph 112 of
3 Sato describes the positive and negative
4 electrode leads, correct?

5 MR. FITZSIMMONS: Objection,
6 form.

7 A. Correct.

8 (BY MR. DOUGLAS)

9 Q. And paragraph 112 discloses that
10 a positive electrode lead has "a width of 6
11 millimeters," correct?

12 A. Correct.

13 Q. Talking about the same positive
14 electrode lead as disclosed in paragraph 112,
15 does Sato disclose the length of that
16 positive lead?

17 MR. FITZSIMMONS: Objection,
18 form.

19 A. Not in paragraph 112.

20 (BY MR. DOUGLAS)

21 Q. Dr. von Sacken, are you aware of
22 a different paragraph or a different location

1 in the disclosure of Sato that provides the
2 length of the positive electrode lead?

3 A. I'm -- I can't recall Sato
4 disclosing the length of the lead.

5 Q. And as you sit here today,
6 Dr. von Sacken, do you have an understanding
7 of the length of the positive electrode lead
8 as disclosed by Sato?

9 MR. FITZSIMMONS: Objection,
10 form.

11 (BY MR. DOUGLAS)

12 Q. Strike that.

13 Dr. von Sacken, I mean, you're
14 free to answer, but we can strike that
15 question.

16 A. Okay. Stricken.

17 Q. Referring back to paragraph 112
18 and Sato's disclosure of a positive electrode
19 lead, does paragraph 112 of Sato disclose the
20 thickness of the positive electrode lead?

21 A. Paragraph 112 does not say
22 anything about thickness.

1 Q. Looking down a little further in
2 paragraph 112, Sato discloses that a negative
3 electrode lead has "a width of 4
4 millimeters," correct?

5 A. Correct.

6 Q. Referring to paragraph 112 in
7 Sato's disclosure of the negative lead, does
8 paragraph 112 disclose the length of the
9 negative lead?

10 A. No.

11 Q. And referring to paragraph 112 in
12 Sato's disclosure of the negative lead, does
13 paragraph 112 disclose the thickness of the
14 negative lead?

15 A. No.

16 Q. Okay.

17 A. Can we take a break soon?

18 Q. Absolutely.

19 MR. DOUGLAS: Would this be a
20 good time, Jason? Is that okay?

21 MR. FITZSIMMONS: Fine by me.

22 MR. DOUGLAS: Okay. Let's go

1 off the record, please.

2 (Break taken from 11:05 a.m. to
3 11:16 a.m.)

4 (BY MR. DOUGLAS)

5 Q. Welcome back, Dr. von Sacken.

6 During the break, Dr. von Sacken,
7 did you meet with counsel?

8 A. No.

9 Q. So right before we took our
10 break, we were discussing paragraph 112 of
11 Sato.

12 Do you recall that?

13 A. Yes.

14 Q. So I'd like to continue our
15 discussion on paragraph 113 of Sato.

16 And starting from the top of
17 paragraph 113 of Sato, it states: "After the
18 attachment of the leads to the electrodes,
19 the leads were protected and insulated by a
20 polypropylene adhesive tape with a width of 8
21 millimeters in the positive electrode plate
22 and by a polyethylene adhesive tape in the

1 negative electrode plate."

2 Do you see that?

3 A. Yes.

4 Q. And in paragraph 113 of Sato, the
5 width of the polypropylene adhesive tape is 8
6 millimeters, correct?

7 A. Yes.

8 Q. And before the break,
9 Dr. von Sacken, we were talking about
10 paragraph 111 of Sato on the prior page; and
11 here, in paragraph 111, Sato discloses "that
12 a portion where the positive electrode
13 current collector was exposed" and "had a
14 width of 8 millimeters," correct?

15 A. Yes.

16 Q. And so would you agree,
17 Dr. von Sacken, that the polypropylene
18 adhesive tape with a width of 8 millimeters
19 that is placed on the positive electrode
20 plate in paragraph 113 has the same width as
21 the portion where the positive electrode
22 current collector was exposed?

1 MR. FITZSIMMONS: Objection,
2 form.

3 A. Agreed.
4 (BY MR. DOUGLAS)

5 Q. And turning back to paragraph 113
6 and that same sentence that we were just
7 talking about, do you see at the end of the
8 first sentence, "a polyethylene adhesive tape
9 in the negative electrode plate"?

10 Do you see that?

11 A. Yes.

12 Q. What is your understanding of
13 Sato's use of "a polyethylene adhesive tape
14 in the negative electrode plate" as it's used
15 in paragraph 113?

16 MR. FITZSIMMONS: Objection,
17 form.

18 A. Let me just read it over again.

19 So the polyethylene tape in 113
20 is -- Sato uses it to protect the -- the
21 negative tab, presumably in case there are
22 burrs on the tab.

1 (BY MR. DOUGLAS)

2 Q. And just so I understand, what
3 the -- when you say "Sato uses the
4 polyethylene tape in 113 to protect the
5 negative tab," do you have an understanding
6 of where, with respect to the negative tab,
7 the polyethylene adhesive tape is placed?

8 MR. FITZSIMMONS: Objection,
9 form.

10 A. This tape is placed -- let me
11 read it again.

12 Yes, it's placed on the lead
13 itself.

14 (BY MR. DOUGLAS)

15 Q. When you say "on the lead
16 itself," are you referring to the -- the lead
17 that is placed on the negative electrode
18 plate, Dr. von Sacken?

19 A. The polyethylene adhesive tape is
20 placed on the lead on the negative electrode.

21 Q. Can we move to paragraph 137 of
22 Sato? I believe it's just on the next page.

1 A. Okay, I've got it.

2 Q. Okay. And for the purposes of
3 our discussion, when we're talking about
4 paragraph 137 of Sato, is it fair to say that
5 this -- that paragraph 137 is part of the
6 discussion of battery 8 in Sato?

7 MR. FITZSIMMONS: Objection,
8 form.

9 A. That's fair.

10 MR. FITZSIMMONS: Objection,
11 mischaracterizes the reference.

12 (BY MR. DOUGLAS)

13 Q. Dr. von Sacken, is -- is
14 paragraph 137 part of the disclosure of
15 battery 8 of Sato?

16 A. Yes.

17 MR. FITZSIMMONS: Same
18 objection.

19 (BY MR. DOUGLAS)

20 Q. Is there a different battery that
21 paragraph 137 relates to?

22 A. I believe it relates to batteries

1 8 through 11.

2 Q. Okay.

3 A. Because they refer back to
4 battery 8.

5 Q. Okay. And so in paragraph 137,
6 it starts with: "Peeling was performed from
7 the surface of the negative electrode current
8 collector connected to the lead such that a
9 portion where the negative electrode current
10 collector was exposed had a width of 6
11 millimeters from the position of
12 372 millimeters to the position of
13 378 millimeters relative to the end of the
14 negative plate in the length direction."

15 Do you see that?

16 A. Yes.

17 Q. Okay. Then it continues, "from
18 the surface of the negative electrode current
19 collector opposite to the surface thereof
20 connected to the lead such that a portion
21 where the negative electrode current
22 collector was exposed had a width of 2

1 millimeters from the position of
2 374 millimeters to the position of
3 376 millimeters relative to the end of the
4 negative plate."

5 Do you see that?

6 A. Just reading it over again.

7 Okay. Yes, I've got it. Okay.

8 You may have to ask your question again.

9 Q. I was just making sure that you
10 were looking at the -- at the same paragraph.
11 So I think -- I think we're in the same spot.

12 Looking at paragraph 137,
13 Dr. von Sacken, are you able to tell me where
14 the negative electrode lead is attached?

15 MR. FITZSIMMONS: Objection,
16 form.

17 A. Paragraph 137 describes creating
18 the -- the bare section where the lead is
19 going to be attached. Does it actually say
20 "attaching the lead"? He's telling the --
21 the intention is clearly to attach the
22 negative lead in the center of the negative

1 plate.

2 (BY MR. DOUGLAS)

3 Q. And when you say "the center of
4 the negative plate," is that what paragraph
5 137 describes as "the position of
6 372 millimeters to the position of
7 378 millimeters relative to the end of the
8 negative plate in the length direction"?

9 A. Yes.

10 Q. Okay. So then in paragraph 137
11 it continues and says: "At this time," it
12 says, "the load was located at the end of the
13 positive electrode such that the lead was
14 located at the innermost portion."

15 Do you see that?

16 A. I do.

17 Q. And would it be fair to say
18 when -- in paragraph 137, when Sato uses the
19 word "load," it is actually referring to
20 "lead" and that's just a typo?

21 A. That might be the case.

22 Q. What do you mean, Dr. von Sacken,

1 that "that might be the case"?

2 A. Well, it's a typo; so you're
3 never sure.

4 Q. Okay. Is it your opinion that
5 when you read paragraph 137, that instead of
6 the "load," Sato is referring to the "lead"?

7 MR. FITZSIMMONS: Objection,
8 form, scope.

9 A. I think that's likely.
10 (BY MR. DOUGLAS)

11 Q. And so if we understand that
12 paragraph 137 is referring to "the lead was
13 located at the end of the positive electrode,
14 such that the lead was located at the
15 innermost portion," would you agree with me
16 that paragraph 137 is describing a situation
17 where the negative lead could be placed in
18 the middle portion and the positive lead
19 is -- is positioned at an end portion?

20 MR. FITZSIMMONS: Objection,
21 form; compound; incomplete hypothetical.

22 A. There I find Sato's ambiguous

1 because in the preceding paragraph, 136, he
2 says, the "positive electrode plate was
3 formed in the same manner as in Example 1,"
4 the only difference being that the lead to
5 the negative plate "was performed in a
6 different manner."

7 So up to this sentence in
8 paragraph 137 beginning with "At this time,"
9 I would read it as Sato disclosing the
10 positive plate being the same as Example 1
11 with the lead in the center and modifying
12 Example 1 to put the negative lead also in
13 the center. The sentence "At this time"
14 seems to introduce a further modification,
15 but nevertheless, he's already disclosed two
16 centrally-located leads.

17 (BY MR. DOUGLAS)

18 Q. And if we look at the sentence
19 starting with "At this time," would you agree
20 with me that in that sentence of paragraph
21 137, that Sato is disclosing a lead located
22 at the end of the positive electrode?

1 A. He appears to be introducing the
2 further modification of moving the positive
3 lead to the end of the electrode.

4 Q. And so do I understand your
5 testimony, Dr. von Sacken, as paragraph 137
6 describes, in your opinion, two different
7 locations of the positive -- strike that.

8 And do I understand your
9 testimony, Dr. von Sacken, as paragraph 137
10 describing two different positive electrode
11 lead positions?

12 MR. FITZSIMMONS: Objection,
13 form.

14 A. I would say there's some
15 ambiguity. When I read the description of
16 battery 8 in paragraphs 136 and 137, Sato at
17 first describes two centrally-located leads,
18 and then he adds a further modification of
19 moving the positive lead to the innermost
20 portion.

21 (BY MR. DOUGLAS)

22 Q. And just so I understand,

1 Dr. von Sacken, where in paragraphs 137 --
2 136 and 137 does Sato at first describe two
3 centrally-located leads?

4 A. In paragraph 136 Sato says, "A
5 positive electrode plate was formed in the
6 same manner as in Example 1, except that
7 attachment of a lead to the negative"...
8 "was performed in a different manner."

9 So from that, I take that the
10 positive electrode and the positive lead are
11 the same as in Example 1.

12 Q. And paragraph 136 is describing
13 how battery 8 was prepared, correct?

14 A. Yes.

15 Q. And when we look at Table 2,
16 there's a single entry for battery 8,
17 correct?

18 A. Yeah.

19 Q. How was battery 8 -- strike that.

20 In the single entry of battery 8
21 in Table 2, what is the location of the
22 positive electrode lead?

1 MR. FITZSIMMONS: Objection,
2 form; calls for speculation; objection,
3 scope.

4 A. From the table, I can't say
5 anything about the position of the leads.

6 (BY MR. DOUGLAS)

7 Q. Dr. von Sacken, do you have an
8 understanding of the position of the leads in
9 battery 8 as disclosed in the Sato reference?

10 MR. FITZSIMMONS: Object to
11 form.

12 A. The way I read it and the way a
13 person of ordinary skill in the art would
14 read it is that first in paragraph 136, Sato
15 presents a positive electrode plate, same as
16 Example 1, and the only difference for
17 battery 8 is the attachment of the lead for
18 the negative.

19 And then he proceeds to describe
20 where the negative lead is attached, the
21 center of the electrode, and then he adds the
22 sentence, "At this time, the load was located

1 at the end of the positive electrode."

2 So he appears to first disclose a
3 battery with two centrally-located leads and
4 then modifies that to move the positive lead
5 to the center, to the end of the electrode.
6 That's the -- the way it's presented.

7 (BY MR. DOUGLAS)

8 Q. And battery 8, as it's described
9 in paragraphs 136 and 137, was tested in the
10 disclosure of Sato, correct?

11 A. Correct.

12 MR. FITZSIMMONS: Objection,
13 form.

14 (BY MR. DOUGLAS)

15 Q. And those test results are shown
16 in Table 2, correct?

17 A. Correct.

18 Q. And so as you sit here today,
19 Dr. von Sacken, can you tell me the positions
20 of the positive electrode lead and the
21 negative electrode lead in the battery that
22 was tested as battery 8 in Table 2?

1 MR. FITZSIMMONS: Objection,
2 form; objection, compound; objection, calls
3 for speculation.

4 A. So as I read through the
5 description of battery 8, it's likely that
6 the final battery that Sato tested has a
7 centrally-located negative lead and the
8 positive lead at the end, but nevertheless,
9 along the way, he's disclosed two
10 centrally-located leads.

11 (BY MR. DOUGLAS)

12 Q. And then at the end of paragraph
13 137, Sato says: "Except for these processes,
14 a battery 8 was fabricated in the same manner
15 as battery 1," correct?

16 A. Correct.

17 Q. And so, Dr. von Sacken, do you
18 recall when we were talking about battery 1,
19 we talked about in paragraph 113 polyethylene
20 adhesive tape in the negative electrode
21 plate? Do you remember that?

22 A. Yes.

1 Q. And so looking at paragraph 136
2 and 137, specifically where paragraph 137
3 says "Except for these processes, a battery 8
4 was fabricated in the same manner as the
5 battery 1," is it your opinion that the
6 negative lead would still be covered by
7 polyethylene adhesive tape as it was
8 disclosed in paragraph 113?

9 MR. FITZSIMMONS: Objection,
10 form.

11 A. Yes.

12 MR. FITZSIMMONS: Incomplete
13 hypothetical.

14 (BY MR. DOUGLAS)

15 Q. Okay. Dr. von Sacken, my
16 apologies, I think you said you had -- you
17 had Exhibit 1006, Takemura, with you. I
18 wrote down "6," but I just want to make sure
19 that -- that you do.

20 A. Yes, I do.

21 Q. Okay. And just like we've been
22 doing with the other ones, we'll upload

1 Exhibit 1006, as well, if that's -- if you
2 want to refer to that.

3 A. Are we turning to 1006 now?

4 Q. Yes. Could we please turn to
5 Exhibit 1006, please?

6 A. Okay.

7 Q. And for the purposes of our
8 discussion, Dr. von Sacken, would it be okay
9 to refer to Exhibit 1006 as the "Takemura
10 reference" or just "Takemura"?

11 A. That would be fine.

12 Q. Okay. And you're familiar with
13 Exhibit 1006, Takemura?

14 A. I'm fairly familiar with it, yes.

15 Q. Okay, great.

16 And Dr. von Sacken, did you
17 locate the Takemura reference as part of your
18 work preparing the -- your declaration in
19 this case?

20 MR. FITZSIMMONS: Objection,
21 relevance; objection -- to the extent it
22 would reveal any privileged communications,

1 I'd caution the witness.

2 A. I don't believe I found this
3 reference.

4 (BY MR. DOUGLAS)

5 Q. And Dr. von Sacken, if you have
6 your declaration in front of you, as well --
7 you're welcome to look wherever, but you give
8 an overview of Takemura starting at paragraph
9 143, which is Page 85.

10 A. Okay. I have it.

11 Q. And Dr. von Sacken, do you recall
12 relying on Figures 8 and 9 of the Takemura
13 reference in your declaration?

14 A. Yes.

15 Q. And so if we can look at
16 paragraph 31 of Takemura...

17 A. Okay. I have it.

18 Q. And paragraph 31 of Takemura is
19 describing Comparative Example 1, correct?

20 A. Correct.

21 Q. And the electrode structure shown
22 in Figure 9 is what Takemura characterizes as

1 Comparative Example 1, correct?

2 A. Correct.

3 Q. And then if I could turn you --
4 it's not a paragraph, Dr. von Sacken, so I
5 apologize, but on Page 11 of Takemura, on the
6 right side, he lists -- he provides a list of
7 figures.

8 A. Yes.

9 Q. And about a little past halfway
10 down the page, it says -- it's describing
11 Figure 8.

12 Do you see that?

13 A. Yes.

14 Q. And you -- and you see he
15 characterizes Figure 8 as "an enlarged
16 cross-sectional view of the center of the
17 flat spiral electrode structure in the first
18 comparative example."

19 Do you see that?

20 A. Okay. Yes.

21 Q. And so would it be fair to say
22 that Figures 8 and 9 of Takemura are

1 describing what Takemura refers to as
2 Comparative Example 1?

3 A. Yes, I believe that's correct.

4 Q. Okay. So can we turn to
5 paragraph 35 of Takemura?

6 A. I have it.

7 Q. Okay. And so it starts: "In
8 Comparative Example 1, as shown in the
9 enlarged central portion of the electrode
10 structure in Figure 8, extra space readily
11 occurs in the innermost portion due to the
12 thickness of current collector terminals 1
13 and 2 and the insulating tape 7."

14 Do you see that?

15 A. Yes.

16 Q. And then it continues, "However,
17 in Example 3, as shown in the enlarged
18 central portion of the electrode structure in
19 Figure 7, extra space is less likely to
20 exist."

21 Do you see that?

22 A. Yes.

1 Q. And then it continues that "also
2 in Example 3, the electrode active material
3 layer to the inside of the innermost layer,
4 where the space is easily created and battery
5 reactions are unlikely to occur, is
6 eliminated" due -- "to reduce excess
7 thickness."

8 Do you see that?

9 A. Yes.

10 Q. And then it concludes, "The
11 resulting difference in discharge capacity
12 with Comparative Example 1 indicates that a
13 higher discharge capacity was obtained and
14 the volumetric energy density was improved."

15 Do you see that?

16 A. Yes.

17 Q. And so paragraph 35 is referring
18 to Figure 7 of Takemura, correct?

19 A. Yes.

20 Q. Okay. Will you turn to Figure 7,
21 please, Dr. von Sacken?

22 A. Okay, I have it.

1 Q. Okay. And for the purposes of
2 your review, I'll also remind you that at the
3 bottom of Page 11 of Takemura to the top of
4 Page 12, Takemura provides a list of
5 reference numbers.

6 Do you see that?

7 A. Yes.

8 Q. Okay. And on Page 12, next to
9 Number 7, do you see that Takemura states,
10 "insulating tape"?

11 Do you see that?

12 A. Where --

13 Q. Sorry about that. So turning now
14 to the top of Page 12, that's the
15 continuation of the list --

16 A. Yes.

17 Q. -- of reference numbers --

18 A. Yes.

19 Q. -- we see Number 7 is represented
20 as "insulating tape."

21 Do you see that?

22 A. Yes.

1 Q. Okay. So now if we look at
2 Figure 7 of Takemura, Dr. von Sacken, are you
3 able to identify any insulating tape in
4 Figure 7 of Takemura?

5 A. In Figure 7, Takemura doesn't
6 show insulating tape because that is a
7 conventional method of protecting against
8 lithium plating, and Takemura has an
9 alternative solution which doesn't require
10 the insulating tape. Nevertheless, he's
11 disclosed it as a conventional method.

12 Q. Okay. Let's turn to paragraph 36
13 of Takemura, please.

14 A. I have it.

15 Q. Okay. And please feel free to
16 review the entire paragraph, but I'd like to
17 ask you about the final sentence if that's
18 all right, Dr. von Sacken.

19 A. Okay. Give me a minute to read
20 it.

21 Q. Okay.

22 A. Okay.

1 Q. And so at the end of paragraph
2 36, Takemura discloses, "Therefore, removing
3 excess active material from the outermost and
4 innermost layers improves cycle
5 characteristics, suppresses battery
6 degradation with respect to repeated use, and
7 has the effect of extending battery life,"
8 correct?

9 A. That's what he says.

10 Q. In contrast in the sentence
11 before, he said, "In Comparative Example 1,
12 extra negative electrode active material
13 exists in the innermost and outermost layers,
14 and when the charge-discharge cycle is
15 repeated, lithium ions are taken in by the
16 extra negative material portions during
17 charging," correct?

18 A. That's what he says.

19 Q. And so you say, "That's what he
20 says," Dr. von Sacken.

21 Do you not agree with Takemura's
22 conclusions in paragraph 36?

1 MR. FITZSIMMONS: Objection,
2 form; objection, scope.

3 A. I would only --

4 MR. FITZSIMMONS: Objection,
5 calls for speculation.

6 A. I would comment that in
7 lithium-ion battery design, there's always
8 tradeoffs.

9 Takemura points out some
10 advantages of his method; nevertheless, the
11 tried and true conventional methods are often
12 best.

13 (BY MR. DOUGLAS)

14 Q. And when you -- when you say "the
15 tried and true conventional methods," are you
16 referring to the methods described in
17 Figures 8 and 9?

18 A. In this case, yes.

19 Q. Okay. So can we turn to
20 paragraph 5 of the Takemura reference,
21 please?

22 A. I have it.

1 Q. And Dr. von Sacken, the -- just
2 below paragraph 5, there's a bracket,
3 "technical problem," close bracket.

4 Do you see that?

5 A. Yes.

6 Q. And so the "technical problem"
7 extends from -- or Takemura defines it from
8 paragraph 5 to 11. I just want to point that
9 out because I'm going to ask you a few
10 questions about that range of paragraphs, if
11 that's all right.

12 A. Okay. Well, why don't you ask
13 your questions, and I will review in detail
14 as I feel necessary.

15 Q. Okay. That works well for me.

16 Paragraphs 5 through 11 of
17 Takemura are discussing Figures 8 and 9,
18 correct?

19 A. I believe -- I believe so.

20 Q. Okay. And if we look at
21 paragraph 8...

22 A. Okay.

1 Q. And about halfway down, there's a
2 sentence that starts with: "Therefore, if
3 there is no positive..."

4 Do you see that?

5 A. Yes.

6 Q. Okay. And the sentence says:
7 "Therefore, if there is no positive electrode
8 active material 3 opposite the negative
9 electrode active material 4, there is no
10 problem with lithium metal deposition,
11 et cetera, as described above," correct?

12 A. Okay.

13 Q. And it continues, "However, if
14 there is no opposing negative electrode
15 active material 4, such as the positive
16 electrode active material 3 arranged around
17 the negative electrode current collector
18 terminal 2 in Figure 9, the surface of the
19 positive electrode active material 3 has to
20 be covered with masking tape 7 or the
21 positive electrode active material 3 has to
22 be shaved off so that there is virtually no

1 positive"... "active material 3 facing the
2 negative electrode active material 4."

3 Do you see that?

4 A. Yes.

5 Q. Okay. Then he concludes that
6 "This leads to problems such as an increased
7 number of production steps and higher costs."

8 A. Okay.

9 Q. And do you understand paragraph 8
10 to be explaining that using masking tape 7
11 leads to problems such as increased number of
12 production steps and higher costs?

13 MR. FITZSIMMONS: Objection,
14 form; scope.

15 A. Takemura contends that there are
16 some disadvantages to using the tape, but
17 there's also a good reason for using the tape
18 to prevent lithium plating and all its
19 attendant issues.

20 (BY MR. DOUGLAS)

21 Q. In paragraph 8 Takemura describes
22 that another option for preventing lithium

1 plating is shaving off the positive active
2 material, correct?

3 A. Correct.

4 Q. Okay. Can we turn to paragraph
5 22 of Takemura?

6 A. Okay.

7 Q. And paragraph 22 of Takemura is
8 referring to Figure 4, correct?

9 A. Yes. I believe that's -- well,
10 it also has Figure 3 in there, but starts
11 with Figure 4.

12 Q. Okay. Fair enough.

13 So paragraph 22 is referred to
14 directly after the paragraph number as the
15 "Third Embodiment."

16 Do you see that?

17 A. Yes.

18 Q. And then he starts and says,
19 "Figure 4 is a cross-sectional view of the
20 electrode structure in the third embodiment
21 of the present invention."

22 Do you see that?

1 A. Yes.

2 Q. So would it be fair to say that
3 Figure 4 is a cross-sectional view of the
4 electrode structure described in paragraph
5 22?

6 A. I believe so.

7 Q. Okay. And at about the fifth
8 line, the very -- at the very end, there's a
9 sentence that starts with "in this."

10 A. Uh-huh.

11 Q. It's the sixth line.

12 A. Sorry, the sixth line of
13 paragraph 22 --

14 Q. Yeah.

15 A. -- "in this example"?

16 Q. Yeah.

17 So it says, "In this example, the
18 beginning of the winding of the negative
19 electrode and the positive electrode is
20 shifted by half a lap, and the current
21 collector terminals 1 and 2 are placed in the
22 central portion of the electrodes."

1 Do you see that?

2 A. Yes.

3 Q. And then please also feel free to
4 refer to Figure 4 itself.

5 A. Yeah.

6 Q. And so if we look at Figure 4,
7 for example, current collector terminal 1 is
8 placed in a central portion of the positive
9 electrode, correct?

10 A. Correct.

11 Q. And current collector terminal 2
12 is placed in a central portion of the
13 electrode, correct?

14 A. Correct.

15 Q. And referring to Figure 4, do you
16 see the reference numeral 7 --

17 A. Yes.

18 Q. -- Dr. von Sacken?

19 A. Yes.

20 Q. And is it your understanding that
21 reference numeral 7 in Figure 4 is pointing
22 to insulating tape?

1 A. Yes.

2 Q. And if you compare -- strike
3 that.

4 Turning back to -- and looking --
5 looking, Dr. von Sacken, at Figure 4, the
6 positive electrode active material layer 3
7 opposite the beginning of the winding end of
8 the negative electrode is covered with
9 insulating tape 7, correct?

10 A. Correct.

11 MR. FITZSIMMONS: Objection,
12 form.

13 (BY MR. DOUGLAS)

14 Q. Will you turn to paragraph 22,
15 please, Dr. von Sacken?

16 A. Okay.

17 Q. Starting at the top of the
18 right-hand column, Page 6, so the
19 continuation of paragraph 22 --

20 A. Yes.

21 Q. -- Takemura states: "The
22 positive electrode active material layer 3

1 opposite the beginning of the winding end of
2 the negative electrode is covered with
3 insulating tape 7," correct?

4 A. Correct.

5 Q. Looking back at Figure 4, other
6 than insulating tape 7 opposite the beginning
7 of the winding end of the negative electrode,
8 does Figure 4 disclose any other insulating
9 tape?

10 MR. FITZSIMMONS: Objection,
11 form.

12 A. Figure 4 shows Takemura's
13 preferred solution, which is to remove any
14 excess positive material so that there's no
15 need for tape except for that one small spot
16 at the beginning of the winding; and even
17 there, he says that -- in paragraph 22, he
18 says you have the option of, instead of
19 covering with the insulating tape 7, the
20 active material in this portion may be
21 removed.

22 So -- so he has his invention

1 that does not require the conventional method
2 of applying tape.

3 (BY MR. DOUGLAS)

4 Q. And so I think your answer
5 follows -- or was pointing to paragraph 22.
6 About halfway down it starts: "Also, active
7 material layers 3, 4 are not formed to the
8 outside of the current collectors 5, 6 in
9 the" outer [sic] "layer because there is no
10 active material on the opposing counter
11 electrode."

12 Is that what you were referring
13 to as "the active material"?

14 MR. FITZSIMMONS: Objection,
15 mischaracterizes the witness' statement.

16 (BY MR. DOUGLAS)

17 Q. Is it your testimony,
18 Dr. von Sacken, that the active material
19 opposite current collector terminals 1 and 2
20 were removed in Figure 4 of Takemura?

21 MR. FITZSIMMONS: Objection,
22 mischaracterizes the witness' statement.

1 A. Takemura proposes a solution
2 where no excess positive coating is applied
3 opposite the negative current collector so
4 that there is no need for -- for tape or
5 other methods of preventing lithium plating.

6 So I think paragraph 22 is
7 consistent with that.

8 (BY MR. DOUGLAS)

9 Q. And paragraph 22 states, "In
10 addition, active material layers facing the
11 current" collectors "1, 2 are not formed,
12 eliminating excess space due to the thickness
13 of the current collector terminals 1, 2, and
14 preventing lithium metal deposition due to
15 excess positive electrode active material,"
16 correct?

17 A. Right. So that's -- that's
18 Takemura's proposed solution.

19 Q. And in Takemura's "proposed
20 solution" as you call it, in paragraph 22,
21 there is no insulating tape facing the
22 current collector terminals 1, 2, correct?

1 A. Correct.

2 Q. And indeed, if there were tape
3 facing the current collector terminals 1, 2,
4 the benefit of eliminating excess space due
5 to the thickness of the current collector
6 terminals 1, 2 would not occur, correct?

7 MR. FITZSIMMONS: Objection,
8 form; objection, calls for speculation;
9 objection, scope.

10 A. I believe that's correct.

11 (BY MR. DOUGLAS)

12 Q. All right. Could we turn to
13 Page 229 of your declaration, Dr. von Sacken?
14 Paragraph 349 is -- is the start of -- of
15 that section on Page 229.

16 A. Okay, I have it.

17 Q. And starting on Page 229, you
18 discuss ground 7.

19 Do you see that?

20 A. Yes.

21 Q. In ground 7, you say, "Claims 1
22 through 3, 9 through 11, and 17 would have

1 been obvious in view of Takemura in
2 combination with Oh-539 and Kobayashi."

3 Do you see that?

4 A. Yes.

5 Q. And so if you turn to the next
6 page, paragraph 353, you state, "As shown
7 below in Figures 8 and 9, Takemura discloses
8 attaching leads 2 and 3 at the ends of
9 positive negative electrodes."

10 Do you see that?

11 A. Yes.

12 Q. And then in the next paragraph,
13 paragraph 354, it starts with "Oh-539 teaches
14 locating the positive and negative leads in
15 centrally-located recesses formed in the
16 positive and negative electrode active
17 material layers."

18 Do you see that?

19 A. Yes.

20 Q. And then turning to the next page
21 and the beginning of paragraph 355, you
22 state, "A POSA, therefore, would have been

1 motivated to move Takemura's positive and
2 negative leads to recesses formed in the
3 positive and negative electrode active"
4 materials, "as taught by Oh-539, to improve
5 Takemura's high power performance."

6 Do you see that?

7 A. Yes.

8 Q. And so before we turn to your
9 declaration, we were just talking about
10 Takemura Figure 4.

11 Do you recall that?

12 A. Yes.

13 Q. And in Takemura Figure 4,
14 Takemura disclosed that current collector
15 terminals 1 and 2 were placed in the central
16 portion of the -- of the electrodes.

17 Do you recall that?

18 A. Yes.

19 Q. So Dr. von Sacken, can you help
20 me understand why you did not choose Figure 4
21 in a third embodiment of Takemura but,
22 instead, chose Oh-539 to support moving

1 Takemura's positive and negative leads to
2 recesses formed in the positive and negative
3 electrode material layers?

4 MR. FITZSIMMONS: Objection,
5 form; objection, scope; and objection -- to
6 the extent an answer would reveal any
7 privileged communications, I'd caution the
8 witness.

9 A. We want to show how the existing
10 prior art discloses all the elements of
11 the -- the patent, so we had -- we can use
12 Takemura's comparative example, which has the
13 tape, and show how that can be combined with
14 Oh, how that would have advantages.

15 If we started with Takemura's
16 Figure 4, then we would have to explain
17 how -- if you did not want to use Takemura's
18 invention but used a conventional tape, how
19 it would be necessary to add tape back to
20 Takemura's Figure 4.

21 You could arrive at the same end
22 either way, but we chose to start with

1 Figure 8 of Takemura, as that seems a simpler
2 explanation.

3 (BY MR. DOUGLAS)

4 Q. So in paragraph 355, you state
5 that one of the motivations "to move
6 Takemura's positive and negative leads to
7 recesses formed in the positive and negative
8 electrode active material layers, as taught
9 by Oh-539" is "to improve Takemura's high
10 power performance."

11 Do you see that?

12 A. Okay.

13 Q. How does moving Takemura's
14 positive and negative leads to recesses
15 formed in the positive and negative electrode
16 active layers as taught by Oh-539 improve
17 Takemura's high power performance?

18 A. We're talking specifically about
19 Figures 8 and 9 of Takemura, which have leads
20 attached to the end.

21 A POSA would understand that if
22 you reduce the distance of current travel in

1 the battery, that reduces impedance. So you
2 would understand that moving the leads to the
3 center of the electrode would reduce
4 impedance, improve high power performance.

5 Q. And if we look back at paragraph
6 22, the third embodiment of Takemura, where
7 the current collector terminals are placed in
8 the central portion of the electrodes, would
9 you agree with me that such an arrangement
10 would also improve Takemura's high power
11 performance?

12 MR. FITZSIMMONS: Objection,
13 form; objection, scope; objection, calls for
14 speculation; and incomplete hypothetical.

15 A. Sorry, you'll have to repeat the
16 question.

17 (BY MR. DOUGLAS)

18 Q. And if we look back at paragraph
19 22, the third embodiment of Takemura, where
20 its current collector terminals are placed in
21 the central portion of the electrodes, would
22 you agree with me that such an arrangement

1 would also improve Takemura's high power
2 performance?

3 MR. FITZSIMMONS: Objection,
4 form; objection, scope; objection, calls for
5 speculation; and incomplete hypothetical.

6 A. Okay. So Takemura does show a
7 configuration that -- that supports the
8 position that there are benefits to moving
9 the -- the leads to the center of the
10 electrode, but what we are saying is that if
11 we're looking at Figure 8 -- have I got the
12 right figure number -- Figures 8 and 9, that
13 configuration does not have the lead on the
14 center.

15 So I would say that figure --
16 sorry, I've lost the figure numbers.

17 Figure 4 of Takemura supports our
18 position that moving the leads to the center
19 improves -- reduces resistance and improves
20 high power performance.

21 (BY MR. DOUGLAS)

22 Q. And indeed, you say, "Reducing

1 the distance of current flow allows the
2 battery to output higher current and reduces
3 resistive heating," in paragraph 355,
4 correct?

5 A. Yes.

6 Q. And just -- just for fairness, I
7 read -- I think there was a typo, but -- but
8 I think you meant "reduces" there,
9 Dr. von Sacken. I don't want to mislead
10 you --

11 A. Yes.

12 Q. -- instead of "redcues." Okay.

13 A. Yeah, I don't know what "redcues"
14 are.

15 Q. Fair enough.

16 MR. DOUGLAS: I think we're
17 just at another hour, Dr. von Sacken.

18 THE WITNESS: Okay.

19 MR. DOUGLAS: Are you okay for
20 a break?

21 THE WITNESS: Yes, I'm always
22 okay for a break.

1 MR. DOUGLAS: Okay. Can we go
2 off the record, please?

3 (Break taken from 12:16 p.m. to
4 12:31 p.m.)

5 (BY MR. DOUGLAS)

6 Q. All right. Dr. von Sacken,
7 welcome back.

8 Dr. von Sacken, did you speak to
9 your counsel during the last break?

10 A. No.

11 Q. Okay. Dr. von Sacken, do you
12 have the Kobayashi reference, Exhibit 1008,
13 with you in paper?

14 A. Yes, got it.

15 Q. And Dr. von Sacken, would it be
16 okay for us to refer to Exhibit 1008 in this
17 proceeding as "Kobayashi"?

18 A. Yes.

19 Q. And you're familiar with the
20 Kobayashi reference?

21 A. Yes.

22 Q. And you relied on the Kobayashi

1 reference in preparing your declaration,
2 correct?

3 A. Correct.

4 Q. Can we look at paragraph 15 of
5 the Kobayashi reference, please, sir?

6 A. Okay, I have it.

7 Q. And paragraph 15 of Kobayashi is
8 discussing the negative electrode plate
9 configuration, correct?

10 A. Yes.

11 Q. And Kobayashi states that, "the
12 negative electrode plate and the positive
13 electrode plate can have the same
14 configuration," correct?

15 A. Correct.

16 Q. And Kobayashi also says, "the
17 negative electrode plate can have the same
18 configuration"... "as the conventional
19 example," correct?

20 A. Yes.

21 Q. If we turn back to paragraph 7 of
22 Kobayashi...

1 A. All right. I have it.

2 Q. Here about halfway down in the
3 paragraph starting -- or the sentence, I'm
4 sorry, starting "Similarly."

5 Do you see that: "Similarly, the
6 negative electrode"?

7 A. Yes.

8 Q. It says: "Similarly, the
9 negative electrode plate 56 has one end of a
10 negative electrode tab"... "connected to a
11 negative electrode exposed core portion 58
12 where a portion of the negative electrode
13 active material"... "57 has been removed, and
14 the edge of the negative electrode active
15 material 57, the negative electrode tab 59,
16 and the surface of the negative electrode
17 exposed core portion 58 are covered with
18 insulating tape 60 with a glue material
19 layer."

20 Do you see that?

21 A. Yes.

22 Q. And Dr. von Sacken, do you have

1 an opinion as to whether the construction of
2 the negative electrode plate as outlined in
3 paragraph 7 of Kobayashi is the conventional
4 example that was described in paragraph 15?

5 MR. FITZSIMMONS: Objection,
6 scope; objection, relevance; objection, form.

7 A. Give me a minute.

8 (BY MR. DOUGLAS)

9 Q. Okay.

10 A. Yes, I believe this is describing
11 the conventional -- conventional battery.

12 Q. Okay. And if we look to
13 paragraph 35 of Kobayashi, about halfway down
14 on the far right, you can see a sentence that
15 starts with, "In the negative electrode
16 plate"?

17 A. Okay.

18 Q. And so here, Kobayashi says, "In
19 the negative electrode plate 12, as in the
20 conventional example, a negative electrode
21 exposed core portion without any negative
22 electrode active material"... "is formed on

1 the beginning end of the winding, a negative
2 electrode tab is attached to the negative
3 electrode exposed core portion, and the
4 negative electrode tab, the negative
5 electrode exposed core portion, and the
6 surface of the negative electrode active
7 material layer near the negative electrode
8 exposed core portion are covered with an
9 insulating tape."

10 Do you see that?

11 A. Okay. Yes.

12 Q. And so as described in paragraph
13 35, "the negative electrode tab, the negative
14 electrode exposed core portion, and the
15 surface of the negative electrode active
16 material layer near the negative electrode
17 exposed core portion are covered with an
18 insulating tape," correct?

19 A. Yes, that's correct.

20 Q. And when we look at the negative
21 electrode plate 12 as in the conventional
22 example in paragraph 35, the negative

1 electrode exposed core portion is formed at
2 the beginning end of the winding, correct?

3 MR. FITZSIMMONS: Objection,
4 form.

5 A. Yes, that's what he says.

6 (BY MR. DOUGLAS)

7 Q. Okay. Let me ask the question
8 again.

9 And in paragraph 35, it states:
10 "In the negative electrode plate 12, as in
11 the conventional example, a negative
12 electrode exposed core portion without any
13 negative electrode active material layer is
14 formed on the beginning end of the winding,"
15 correct?

16 A. That's right.

17 Q. Okay. Dr. von Sacken, you can
18 put the Kobayashi reference aside.

19 I'd like to turn to Exhibit 1007,
20 to -- that we've called Oh-539 in this
21 proceeding.

22 Do you have that with you?

1 A. I believe so. That's 1007. Yes,
2 here we go.

3 Q. Okay.

4 A. I have it.

5 Q. And so for the purposes of our
6 discussion today, may I refer to U.S. Patent
7 Publication Number 2011/0104539, which has
8 been marked as Exhibit 1007, as "Oh-539"?

9 A. Yes. That's fine.

10 Q. Okay. And you've reviewed the
11 Oh-539 reference?

12 A. I have.

13 Q. Okay. And you wrote -- you rely
14 on the Oh-539 reference in your declaration?

15 A. I do.

16 Q. Okay. Dr. von Sacken, will you
17 review -- will you look at Figure 4 of the
18 Oh-539 patent?

19 A. Okay, I have it.

20 Q. Dr. von Sacken, does Figure 4 of
21 Oh-539 illustrate the use of insulating tape
22 as you understand it?

1 A. No. I don't believe Oh mentions
2 the use of insulating tape, but let me check.
3 All right. Just give me a moment, please.

4 No, I don't believe Oh-539 refers
5 to insulating tape, so...

6 Q. Dr. von Sacken, I think you --
7 I'm sorry, were you done?

8 A. Yes.

9 Q. Okay. Dr. von Sacken, I think
10 that -- that you've already told me that you
11 had not discussed the -- the contents of your
12 testimony with your counsel during the
13 deposition today; is that correct?

14 A. During the breaks, no, we haven't
15 had any discussions.

16 Q. Dr. von Sacken, I appreciate your
17 time today. I don't have any more questions
18 at this time.

19 A. Okay.

20 MR. FITZSIMMONS: Let's take a
21 15-minute break, so 2:00 Eastern, 11:00
22 Pacific.

1 Let's go off the record.

2 (Break taken from 12:44 p.m. to
3 1:00 p.m.)

4 MR. FITZSIMMONS: No further
5 questions for me. Thank you. We can close
6 the record.

7 THE COURT REPORTER: Do you
8 need the exhibits?

9 MR. DOUGLAS: No, I don't think
10 so. They're already marked in this
11 proceeding.

12 THE COURT REPORTER: There's a
13 standing order for a rough draft and a 5-day
14 expedite. Does that work for each of you,
15 Mr. Douglas and Mr. Fitzsimmons?

16 MR. DOUGLAS: Yes, I think
17 that's what we put in.

18 MR. FITZSIMMONS: That's fine
19 for us, as well. Same.

20 (Deposition concluded at 1:01 p.m.)
21
22

1 Certificate of Shorthand Reporter

2 I, Annette Peltier, CSR, Texas

3 Certified Realtime Reporter in and for the
4 State of Texas do hereby certify:

5

6 That Dr. Ulrich von Sacken, the witness
7 whose deposition is herein before set forth,
8 was duly sworn before the commencement of
9 such deposition and that such deposition was
10 taken before me and is a true record of the
11 testimony given by such witness.

12

13 I further certify that the adverse
14 party, Patent Owner, was represented by
15 counsel at the deposition.

16

17 I further certify that the deposition
18 of Dr. Ulrich von Sacken occurred via Zoom
19 videoconference on November 25, 2025,
20 commencing at 10:00 a.m. to 1:01 p.m.
21 Central.

22

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6 financially or otherwise, in the outcome of
7 this matter.

8
9 IN WITNESS WHEREOF, I have hereunto set
10 my hand this 4th day of December, 2025.

11
12 

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