Transcript of James Kaschmitter

Date: February 20, 2026
Case: Zhuhai CosMX Battery Co., LTD. -v- Ningde Amperex Technology LTD. (PTAB)

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Zhuhai CosMX Battery Co. EX1034
IPR2025-00389
U.S. Patent No. 11,923,498

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZHUHAI COSMX BATTERY CO., LTD.,

Petitioner,

V.

NINGDE AMPEREX TECHNOLOGY LIMITED,

Patent Owner.

Case IPR2025-00524

U.S. Patent No. 12,015,118

DEPOSITION OF JAMES KASCHMITTER

San Francisco, California

Friday, February 20, 2026

REPORTED BY: Derek L. Hoagland

CSR No. 13445

1 UNITED STATES PATENT AND TRADEMARK OFFICE
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NINGDE AMPEREX TECHNOLOGY LIMITED,
5 Patent Owner.
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6 Case IPR2025-00524
U.S. Patent No. 12,015,118
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11 Deposition of JAMES KASCHMITTER, taken before Derek L.
12 Hoagland, a Certified Shorthand Reporter for the State
13 of California, commencing at 10:01 a.m., Friday,
14 February 20, 2026, at 55 2nd Street, Suite 2100,
15 San Francisco, California 94105.
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1 APPEARANCES:

2

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1 I N D E X

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8 E X H I B I T S

9 EXHIBIT DESCRIPTION MARKED
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11 2018 Second declaration 14
12 1001 '498 patent 15
13 1005 Sato reference 97
14 1006 Takamura reference 137
15 1008 Kobayashi reference 142
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1 10:01 a.m. P R O C E E D I N G S
2
3 (Whereupon, the deponent is
4 duly sworn by the court reporter.)
5 MR. FITZSIMMONS: Good morning. Jason
6 Fitzsimmons from Stern Kessler Goldstein & Fox.
7 Could you please state your full name for the
8 record.
9 THE DEPONENT: James Kaschmitter.
10
11 JAMES KASCHMITTER,
12 having first been duly sworn,
13 was examined and testified as follows:
14
15 EXAMINATION
16 BY MR. FITZSIMMONS:
17 Q. Okay. And do you know why you are here today?
18 A. To testify in regards to the '498 patent.
19 Q. Okay. And so is it your understanding that that
20 '498 patent, which is U.S. Patent No. 11,923,498, is
21 involved in an inter partes review proceeding?
22 A. Yes.
23 Q. Okay. And that, just for the record, is IPR
24 No. 2025-00389. Does that sound familiar?
25 A. I didn't memorize that number. Sorry.

1 Q. And are you okay, Mr. Kaschmitter, if I refer to
2 that patent as "the '498 patent" today?
3 A. That's fine.
4 Q. All right. And you understand that you are
5 under oath today?
6 A. Yes.
7 Q. Okay. And is there any reason that would
8 prevent you from testifying truthfully or accurately
9 today?
10 A. No.
11 Q. Okay. Are you under any medication or is there
12 any other reason that your testimony might be impaired
13 in any way today?
14 A. Ah, no.
15 Q. Have you been deposed before?
16 A. Yes.
17 Q. How many times?
18 A. I think it's probably three, four, in that
19 range.
20 Q. Okay. And what were those matters?
21 A. One was a class action cartel suit, and the
22 others were patent disputes.
23 Q. Okay. So how many patent disputes?
24 A. Two or three.
25 Q. Okay. And what was the subject matter of those?

1 A. Lithium-ion batteries.
2 Q. Okay. Do you recall if those matters were
3 before the PTAB or district courts?
4 A. I believe they were district court, if I
5 remember.
6 Q. Okay. Have you had your deposition taken in
7 relation to a PTAB matter before, like this one?
8 A. An inter partes review? Is that --
9 Q. An inter partes review, yes, IPR.
10 A. No, I don't think so.
11 Q. Okay. Just a few ground rules. And I know you
12 have done this before, but it is important for the court
13 reporter that we don't speak over each other today. So
14 if you just please allow me to finish a question before
15 you begin answering, appreciate that.
16 Is that fair?
17 A. Sure.
18 Q. Okay. And if you don't understand a question I
19 ask, please let me know.
20 Do you agree --
21 A. Uh-huh.
22 Q. -- that if you don't understand a question, you
23 will ask for clarification?
24 A. Sure.
25 Q. Okay. And, for the record, we will need a

1 verbal answer, rather than a head shaking or "uh-huh" or
2 "huh-uh."
3 A. Okay. Sure. That's fine.
4 Q. And we will take periodic breaks throughout the
5 day. If you need a break at any time, please just let
6 me know.
7 A. Okay.
8 Q. Otherwise, I would just ask that if there is a
9 question pending that we wait until there's a response
10 to that answer to take a break. Is that fair?
11 A. Sure.
12 Q. Okay. Who is retaining you for this proceeding
13 with respect to the '498 patent?
14 A. ATL.
15 Q. Okay. And ATL, that's Ningde Amperex Technology
16 Limited, correct?
17 A. That's right.
18 Q. Okay. And I will also refer to them as "ATL" if
19 I need to do so today.
20 A. Uh-huh.
21 Q. All right. When were you first contacted about
22 potentially working on this matter related to the '498
23 patent?
24 A. I don't remember the exact date. I think it was
25 about a year ago.

1 Q. Okay. And so that would have been in early
2 2025?
3 A. Yes.
4 Q. Okay. And who contacted you in regard to this
5 matter?
6 A. The -- Alston & Bird.
7 Q. Okay. Was it attorneys at Alston & Bird?
8 A. You know, I don't remember. I think it was,
9 yeah.
10 Q. Okay. Have you spoken with anyone from ATL
11 about this matter?
12 A. No.
13 Q. Okay. And you have previously submitted a
14 declaration in a PTAB matter before, correct?
15 A. That's -- PTAB is a --
16 Q. The Patent Trial and Appeal Board.
17 A. Patent Trial and Appeal Board. On this matter?
18 Oh, I -- I submitted a declaration, I'm sorry,
19 yes. Is that what you're asking?
20 Q. My question is: Prior to this matter, you
21 submitted a declaration in a prior proceeding. Is that
22 correct?
23 A. I submitted declarations in other cases
24 previously.
25 Q. Okay. And one of those cases was related to

1 U.S. Patent No. 11,329,352.
2 Do you recall that?
3 A. I don't -- I don't remember the exact number.
4 '352 sounds familiar. What case was it? Can you give
5 me the --
6 Q. It was another ATL patent.
7 A. Right.
8 Q. So have you submitted a declaration --
9 A. Yeah.
10 Q. -- on behalf of ATL previously?
11 A. Yeah.
12 Q. Okay. And when were you -- do you recall when
13 you were first contacted regarding that matter?
14 A. No, I -- I don't -- I would have to look at my
15 notes to find that.
16 Q. That's fine. Were you familiar with ATL prior
17 to working with them on that prior PTAB matter?
18 A. Well, they are well-known in the industry, so I
19 am familiar with them.
20 Q. Okay. Had you worked with them previously?
21 A. No.
22 Q. Have you served as an expert in any other
23 matters other than the three or four that you recall?
24 A. Yeah, there are other matters. I -- I think
25 total is maybe more like around 14, 15, or something

1 like that.
2 Q. Okay. How many of those were related to patent
3 matters?
4 A. A good portion. Maybe half.
5 Q. Okay. But you said that you weren't deposed
6 in -- so -- strike that.
7 You weren't deposed in all those matters. Is
8 that correct?
9 A. That's right.
10 Q. How did you prepare for today's deposition?
11 A. Well, I think it's in my declaration. Could we
12 look at the language there?
13 Q. Well, I am saying to prepare for today.
14 A. Yeah.
15 Q. What did you do to prepare for today?
16 A. For today? Just reviewed the materials at hand,
17 the exhibits, and discussions with counsel.
18 Q. Okay. What documents did you review to prepare
19 for the deposition today?
20 A. Principally the -- the primary patents that are
21 referred to in the declaration.
22 Q. Okay. And do you recall the names of those?
23 A. I know the authors. Sato, Takamura, Kobayashi,
24 Mo. I think those were the main ones.
25 Q. Okay. Did you review --

1 A. That's the '498, of course.
2 Q. Sure.
3 A. Yeah.
4 Q. You have two declarations submitted in this
5 proceeding. Did you review both of those declarations
6 prior to the deposition today?
7 A. Yes.
8 Q. Okay. And were there any documents that you
9 reviewed preparing for today that are not listed in your
10 declarations?
11 A. I don't think so.
12 Q. In preparing for today, did you review the
13 board's institution decision?
14 A. Ah, no, actually, I didn't. I think I saw that
15 a while before, but --
16 Q. Okay. Have you previously reviewed the board's
17 institution decision, though?
18 A. Yeah.
19 Q. Okay. In preparing for today, did you review
20 the patent owner's response?
21 A. To the -- to the board institution? Yeah, as
22 I -- as it -- I think it was discussed in a declaration.
23 Q. How much time did you spend preparing for
24 today's deposition?
25 A. Oh, on the order of two, three days, something

1 like that.
2 Q. Okay. How many hours over the course of those
3 two or three days?
4 A. Maybe 20, 30.
5 Q. Okay. And who did you -- did you meet with
6 anyone to prepare for today's deposition?
7 A. Yeah, I met with Jason and Christopher.
8 Q. Okay. Did you meet with anyone else?
9 A. Ah, no.
10 Q. Okay. Did those meetings occur remotely or in
11 person?
12 A. One remote and one next door here.
13 Q. Okay. Did you prepare for this deposition with
14 anyone other than counsel here?
15 A. No.
16 Q. Okay. So as I mentioned, you submitted two
17 declarations in this proceeding. I will hand these to
18 you now.
19 A. Okay.
20 Q. That is the first one.
21 MR. FITZSIMMONS: Counsel, do you want a copy?
22 MR. DOUGLAS: Sure.
23 THE REPORTER: Is this Exhibit 1?
24 MR. FITZSIMMONS: Exhibit 2015.
25 (Exhibit No. 2015 marked for identification.)

1 BY MR. FITZSIMMONS:
2 Q. All right. So the first document here, this is
3 your first declaration, Exhibit 2015. Can you confirm
4 for me, please, that this is the first declaration that
5 you submitted in this proceeding, Mr. Kaschmitter?
6 A. Yes, that's it.
7 Q. Okay. If you go to the last page there, is that
8 your signature with the date of June 10th, 2025?
9 A. That's correct.
10 Q. Okay. And for the purposes of today's
11 deposition, since there are two declarations, is it all
12 right if I refer to this as "your first declaration"?
13 A. Yes.
14 Q. I will also try to refer to it by the exhibit
15 number to make things easy.
16 A. "First declaration" is clear enough.
17 Q. This is also -- this is your second --
18 A. Uh-huh.
19 Q. -- declaration. This is Exhibit 2018.
20 (Exhibit No. 2018 marked for identification.)
21 THE DEPONENT: Okay.
22 BY MR. FITZSIMMONS:
23 Q. And can you confirm for me that this is the
24 second declaration that you submitted in this
25 proceeding?

1 A. Yes.
2 Q. And on the last page there, is that your
3 signature --
4 A. Yes.
5 Q. -- dated December 10th, 2025?
6 A. Yes.
7 Q. And, again, so for the purposes of the
8 deposition, is it okay if I refer to this as
9 "your second declaration"?
10 A. That's good.
11 Q. Great. I will just get this over to you, too.
12 This is Exhibit 1001. This is the '498 patent.
13 (Exhibit No. 1001 marked for identification.)
14 BY MR. FITZSIMMONS:
15 Q. And do you recognize this document?
16 A. Yes.
17 Q. Okay. And this is the document we mentioned
18 that we will refer to as "the '498 patent," correct?
19 A. Yes.
20 Q. Okay.
21 A. Sometimes I call it "Tao," just so you know.
22 Q. So either "Tao" or "the '498 patent"?
23 A. Yeah.
24 Q. Okay. And in preparing for today's deposition,
25 just again, you reviewed those two declarations and the

1 '498 patent. Is that correct?
2 A. Yes.
3 Q. Okay. Did you review the entire documents?
4 A. I didn't exhaustively read it, if that's what
5 you're asking.
6 Q. What do you mean by you "didn't exhaustively
7 read it"?
8 A. Well, I didn't read -- you know, I looked at the
9 key sections.
10 Q. Okay. What key sections did you review?
11 A. Well, I don't review some of the -- I know my
12 resume, for instance, so I don't review that.
13 Q. Okay.
14 A. Yeah.
15 Q. To your knowledge, do you provide any opinions
16 in your two declarations that are inconsistent with each
17 other?
18 A. I don't recall any.
19 Q. Okay. After reviewing your declarations,
20 Exhibits 2015 and 2018, in preparing for today's
21 deposition, is there anything that you no longer believe
22 to be accurate in them?
23 A. No. In the de -- in my two declarations? No, I
24 don't think there is anything.
25 Q. Did you write these declarations?

1 MR. DOUGLAS: Object to form.
2 THE DEPONENT: I'm sorry? Oh.
3 MR. DOUGLAS: You can answer.
4 MR. FITZSIMMONS: I'm sorry.
5 MR. DOUGLAS: I said "Object to form."
6 THE DEPONENT: Yes, I wrote them. Other than
7 some of the legal definitions were provided to me by
8 attorneys, because I am not an attorney.
9 BY MR. FITZSIMMONS:
10 Q. Okay. And when you say you wrote them, did you
11 physically type the words in those declarations?
12 A. Yes, yeah.
13 Q. Did you -- other than the legal sections that
14 you mentioned, did you type every word of your test --
15 your opinions in those declarations?
16 A. There may have been some editing to fix some
17 spelling errors and things like that.
18 Q. How long did you spend writing each of those
19 declarations? We will start with the first declaration.
20 How long did you spend writing that, your first
21 declaration?
22 A. I don't remember the exact numbers, but it's
23 probably on the order of 40, 50 hours for -- you know,
24 maybe the first one was a little longer.
25 Q. Okay. And so about the same, maybe a little

1 less --
2 A. Yeah.
3 Q. -- for the second declaration?
4 A. Yeah, something on that order.
5 Q. What was your process for writing your
6 declarations?
7 A. Oh, it's based on a review of the exhibits, and
8 then formulating responses, you know, to my analysis
9 of -- of the patent and the other exhibits, discussions
10 with counsel, and that's -- like that.
11 Q. When preparing your first declaration, what did
12 you review first?
13 A. The '498 patent.
14 Q. And did you review all of the prior art
15 references in the grounds of the petition?
16 A. All of the prior... you know I -- I would have
17 to look at that list. I mean, as I mentioned before,
18 you know, I reviewed the key patents, and I rattled off
19 a list of the ones I recall, and -- but I don't -- I
20 can't say that I exhaustively -- I reviewed all the
21 documents that were provided to me as the exhibits, but,
22 you know, I am focused, obviously, more on the ones that
23 are referred to here.
24 Q. Okay. And did you review Dr. VonSacken's
25 declaration, which is Exhibit 1003 in this proceeding?

1 A. Yes.
2 Q. Okay. And did you review the entirety of Dr.
3 VonSacken's declaration?
4 A. Yes.
5 Q. Okay. You have a bachelor's degree in physics.
6 Is that correct?
7 A. Yes.
8 Q. And a master's in electrical engineering?
9 A. Yes.
10 Q. And after obtaining your master's degree, you
11 held various positions in industry and at federal
12 laboratories. Is that right?
13 A. Yes.
14 Q. Okay. And you worked at Lawrence Livermore
15 National Lab?
16 A. Yes.
17 Q. Okay. When was that?
18 A. Starting in about '85, running up for about
19 almost ten years.
20 Q. Okay. And what did you do at Livermore?
21 A. My initial position was -- I was responsible for
22 equipment for the very-high-speed integrated circuit
23 program and laser pantography project. So I built the
24 equipment to perform those -- what do you call --
25 experiments.

1 Q. Did you work on lithium-ion batteries while
2 working at Livermore?
3 A. Yeah, that was -- so, yeah, I think you asked my
4 first position. That was my initial position. In 1989,
5 I started working on lithium-ion batteries as part of
6 the Star Wars program.
7 Q. And in your projects working on lithium-ion
8 batteries, did you need to address any problems
9 associated with short-circuiting in lithium-ion
10 batteries?
11 A. Well, short-circuiting in all batteries is
12 always a problem, and -- but we weren't focused on that
13 because we were developing new materials that had never
14 been used before. So most of our work was focused on
15 the material analysis.
16 Q. Uh-huh. And what new materials did you develop?
17 A. We were able to use things like carbon aerogels.
18 And we were formulating and powerlyzing materials, other
19 materials, PMAN, poly(methyl acrylate), and things like
20 that. We mostly used cobaltite as the cathode material.
21 Q. You said that short-circuiting in all batteries
22 is always a problem. What are some of the causes of
23 short-circuiting in batteries?
24 A. Oh, there can be quite a few. Depending on the
25 packaging of the cell, it could vary. But basically a

1 short-circuit just means your positive and negative
2 electrode have some kind of contact. It can be a
3 resistive contact or a direct short, a dead short.
4 Q. What type of measures do people in the field
5 take to prevent short-circuiting in batteries?
6 A. Well, the first thing is you need a separator
7 that provides ionic transport but is electrically
8 isolating. So that's number one. That's what keeps the
9 two electrodes from direct contact with each other.
10 And then other types of things would include
11 just the way you design, you know, that packaging and so
12 on to prevent shorts. And things like taping, you know,
13 or insulating rings, like in an 18650, that type of
14 thing. There's polymer rings that are used to, for
15 instance, keep the leads from shorting to the end of the
16 jelly roll, stuff like that.
17 Q. You founded a company called PolyStor
18 Corporation. Is that right?
19 A. Uh-huh.
20 Q. Okay. And what did PolyStor do?
21 A. Manufacture lithium-ion batteries.
22 Q. Okay. During your time at PolyStor, did you
23 ever personally participate in overseeing the
24 manufacture of lithium-ion batteries?
25 A. I didn't directly oversee the manufacture. Our

1 director of -- or vice president of manufacturing was
2 the most directly responsible.
3 Q. Did -- was your team aware of problems that were
4 associated with short-circuiting in lithium-ion
5 batteries?
6 A. Yeah.
7 Q. In the lithium-ion batteries that you
8 manufactured at PolyStor, did any of those batteries
9 include the application of insulating tape or adhesive?
10 A. Yes.
11 Q. And your CV mentioned that you developed and
12 manufactured batteries for Ericsson, Motorola, and
13 others. What other companies that you are at liberty to
14 share with -- I don't want you to disclose anything
15 confidential --
16 A. This is going back a long way.
17 Q. One second. Sorry. Just let me -- I just want
18 to -- let me finish my question.
19 A. All right.
20 Q. I will just repeat that.
21 So your CV mentioned that you developed and
22 manufactured batteries for Ericsson, Motorola, and
23 others. What other companies did you work with?
24 A. You are going back in time. So I think we did
25 some stuff with, was it, Blackberry that used to make

1 the texting system. And then one of the first tablet
2 companies. Gosh, I can't remember their name now.
3 Anyway. It was -- and then there was some smaller
4 start-ups that we did work for.
5 Q. And you also founded a company called PowerStor.
6 Is that right?
7 A. Yes.
8 Q. And you worked at a company called UltraCell.
9 Is that right?
10 A. Yes.
11 Q. Okay. And you're currently at SpectraPower. Is
12 that right?
13 A. Yes.
14 Q. Okay. And with any of those companies, did you
15 have a business relationship with ATL?
16 A. No.
17 Q. Okay. At SpectraPower, where you are now, what
18 aspects of lithium-ion battery technology does your work
19 there focus on?
20 MR. DOUGLAS: Object to form.
21 THE DEPONENT: The -- we -- so SpectraPower's
22 business is to -- principal business is to do
23 prototyping, build prototype lithium-ion cells using
24 newly developed materials. So a lot of our customers
25 are, like, material scientists, and they don't know how

1 to build lithium-ion cells, and they don't want to
2 learn. And so they will come to us and give us a
3 material, and we will put the other materials together,
4 put it into a cell, and build it and test it for them.
5 And so we are -- we are dealing with a wide
6 variety of different kinds of materials, many of which
7 are experimental.
8 BY MR. FITZSIMMONS:
9 Q. Okay. And in this prototyping and development,
10 is safety an important design and manufacture
11 consideration for the lithium-ion batteries?
12 MR. DOUGLAS: Object to form.
13 THE DEPONENT: Well, safety is always an issue
14 in lithium-ion. We are using experimental materials, so
15 we err on the side of trying to be ultrasafe because we
16 don't know how these materials are going to react in a
17 battery, and -- but it's always an issue.
18 BY MR. FITZSIMMONS:
19 Q. Okay. What are some of the safety concerns with
20 lithium-ion batteries?
21 A. Well, the principal one that you can read about,
22 I think, too, is what's called thermal runaway. When
23 the temperatures in a lithium-ion cell exceed as low as
24 100C, you start to develop reactions in the materials.
25 And one of the problems in lithium-ion, you know -- so

1 you have a lot of sort of hazardous components, frankly,
2 in a cell.
3 So first of all, you have carbon, you know,
4 which think of, you know, like coal, right? And then
5 you have a very flammable electrolyte. Its solvent is
6 carbonates, things like dimethyl carbonate, diethyl
7 carbonate, propylene carbonate, et cetera. And then the
8 salt is lithium perchlorate. It's a LiPF6.
9 So you have lithium, which is very reactive;
10 phosphorus, which people make -- makes good flairs; and
11 then you have fluorene, so that's a very reactive
12 material. And so, you know, there's -- there's a lot of
13 potential to have issues.
14 And when the temperature goes over about 150C,
15 the cell goes into thermal runaway, and you get a series
16 of reactions that cause -- can cause venting, fire,
17 explosion.
18 Q. Okay. And would you say that fire and -- or
19 explosion are about the worst -- are the worst-case
20 scenario for a battery?
21 A. Yeah.
22 Q. You mentioned thermal runaway. What causes
23 thermal runaway in a lithium-ion battery?
24 A. Oh, there's a number of things. For instance,
25 you can have a resistive short in your separator. A

1 resistive short, think of it like a pinhole. Most of
2 the separator they use today is polyethylene. It is
3 very, very thin, as low as 5 microns, so it doesn't take
4 much -- the problem is when you get a resistive short,
5 it is like a little heating wire between your
6 electrodes.
7 And as the current flows, it gets hotter; it
8 heats up the separator; the separator then starts to
9 withdraw; it shrinks; and it will actually start melting
10 at about 135 Centigrade. And once it melts, you are --
11 you are toast, so to speak.
12 Q. Are you familiar with the issue of lithium
13 plating in lithium-ion batteries?
14 A. Yes.
15 Q. Okay. And what causes lithium plating?
16 A. Well, it -- it is basically if you have a -- you
17 have a positive electrode, say, in this case, lithium
18 cobalt dioxide, and when you charge the cell, you are
19 basically moving the lithium ions from the positive
20 electrode, the cathode, across through the separator and
21 electrolyte, into the anode. The anode is at a negative
22 potential, not a negative. It is in a low potential,
23 sort of in the range of zero to .5 volts.
24 This is a plating potential for lithium, and so
25 it will plate onto the anode. And so it can either

1 plate onto the active material or it can plate onto
2 metal or tabs, anything that -- where it sees that
3 potential.
4 Q. And what is the result from lithium plating?
5 MR. DOUGLAS: Object to form.
6 THE DEPONENT: It's -- well, the -- it can be
7 hazardous. First of all, it -- if you, say, have very
8 light lithium plate, which is not unusual in many cells,
9 you will have reduced cycle life because you are
10 absorbing lithium that otherwise could be used to
11 transport and store energy in the cell. So that's --
12 you might see reduced capacity to start, and then you
13 would see probably poor cycle life.
14 If it continues with cycling, then it can become
15 hazardous. It's always hazardous to some extent because
16 lithium metal, when exposed to moisture, is highly
17 reactive. It will heat -- even opening an old cell, you
18 can get heating. But then if it continues, you can form
19 what are called dendrites. These are little needle-like
20 pieces of lithium. They can puncture the separator,
21 short the electrodes, and then you have got a
22 catastrophic situation.
23 BY MR. FITZSIMMONS:
24 Q. Okay. So lithium plating in lithium-ion
25 batteries can lead to what you call a catastrophic

1 situation in the battery. Is that --
2 A. In the worst case, yeah.
3 Q. In view of that, is lithium plating something
4 that people of skill in your field look to prevent from
5 occurring in a lithium-ion battery?
6 MR. DOUGLAS: Object to form.
7 THE DEPONENT: Yes.
8 Oh, sorry.
9 BY MR. FITZSIMMONS:
10 Q. You mentioned, I think, reduced capacity and
11 reduced cycle life as potential other consequences --
12 A. Uh-huh.
13 Q. -- from lithium plating, right?
14 A. Uh-huh.
15 Q. If a person in the field needed to choose
16 between reduced cycle life and a short-circuit due to
17 lithium plating, which would they prioritize preventing?
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: Well, short-circuit is the most
20 hazardous.
21 BY MR. FITZSIMMONS:
22 Q. And so they would look to prevent a
23 short-circuit?
24 A. Most -- unless -- in almost all cases, let me
25 just say.

1 Q. What are common techniques for preventing
2 lithium plating?
3 MR. DOUGLAS: Object to form.
4 THE DEPONENT: Well, first of all, the design of
5 the cell is critical. So there's something called the N
6 to P ratio, negative to positive ratio. So it's both
7 physical and design parameters. So actually let me just
8 start with the physical.
9 So typically the anode, which is the negative,
10 is in -- physically dimensioned larger than the cathode.
11 That ensures -- your goal is to ensure that you always
12 have anode -- sufficient anode to absorb lithium ions
13 that are coming from the cathode. That pre -- if they
14 are absorbed and intercalate into the graphite in the
15 anode, they won't plate. So you want them all to
16 intercalate.
17 Lithium-ion batteries were actually invented to
18 solve problems with lithium plating, and that's how they
19 do it, too. So then you have got a physically larger
20 anode, so that ensures that, you know, you don't have
21 edge effects. And then you make the separator slightly
22 larger than the anode. That way the anode and the
23 cathode are never physically in contact.
24 So that's one design parameter. And then as I
25 mentioned, the other one would be the

1 negative-to-positive ratio.
2 So you want to have more capacity in your anode
3 than in your cathode. Usually in the range of anywhere
4 from 5 to 20 percent, depending on how conservative you
5 are. That ensures that lithium ions that are coming out
6 of the cathode on charge and going into the anode always
7 can find a place. In other words, there's sufficient
8 capacity it can absorb all those lithium ions and still
9 have a little bit of extra room.
10 And so those are the design parameters, and
11 then -- what's your question? Let me --
12 BY MR. FITZSIMMONS:
13 Q. Common techniques for preventing lithium
14 plating.
15 A. Okay. So --
16 Q. Are there any others?
17 A. Yeah, there's other. So then there are things
18 like taping, you know, where you want to prevent those
19 lithium ions from ever seeing -- you know, being able to
20 plate on a metal part, a tab, an edge, metal edge,
21 current collector that you don't want to have it on. So
22 you -- you can tape those, or in your winding, you can
23 position them so that you -- it won't -- they won't see
24 the negative potential metal.
25 Q. Okay. Are there other techniques for preventing

1 lithium plating?
2 A. Well, one thing you want to do -- overcharge is
3 very hazardous in lithium-ion because it will cause
4 plating even if you have done all the design parameters
5 correctly. So you want to present -- prevent overcharge
6 above all else.
7 Overcharge will basically -- see, the cathode
8 has more lithium than you normally use in just regular
9 charge/discharge. Lithium is part of the crystalline
10 structure of the cathode. If you pull too much out of
11 it, which is what happens when you overcharge, you will
12 both plate lithium onto the anode and you will
13 destabilize the cathode. And the cathode has oxygen in
14 it. So you want to avoid that at all costs.
15 Q. Is removing some of the active material layer
16 another technique that can be used for preventing
17 lithium plating?
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: If you -- yes. You can -- you
20 can make sure that you don't have a material, you
21 know -- so I'm not sure exactly what you're getting at,
22 but --
23 BY MR. FITZSIMMONS:
24 Q. All right. Is another technique for preventing
25 lithium plating removing active material across from the

1 lead?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: Yes. You are sourcing lithium
4 ions out of the cathode. If there's no cathode material
5 there, you can't source lithium ions.
6 BY MR. FITZSIMMONS:
7 Q. How long have these techniques been used in the
8 industry?
9 MR. DOUGLAS: Object to form.
10 THE DEPONENT: Pretty much going back to the
11 start of it.
12 BY MR. FITZSIMMONS:
13 Q. And when would that be?
14 A. Oh, somebody introduced the first commercial
15 lithium-ion cell in 1991.
16 Q. And would you consider these techniques to be
17 within the level of skill of a person of ordinary skill
18 in this art?
19 MR. DOUGLAS: Object to form.
20 THE DEPONENT: You know, it's really mostly
21 known by cell designers, so -- I'm not sure quite how to
22 answer that, but in this industry there are a lot of
23 people still that don't know some of these -- these
24 things. But if you are a cell designer, you know this
25 stuff.

1 BY MR. FITZSIMMONS:
2 Q. Okay. Based on your experience, you would say
3 that you are familiar with the manufacturing process for
4 lithium-ion batteries in the 2014 time frame. Is that
5 right?
6 A. Yeah, I -- I mean, I have been familiar with
7 lithium-ion manufacturing since I started at, I would
8 say, PolyStor, but I can't say that I am familiar with
9 every manufacturing technique or something like that.
10 Q. During manufacture, do you need to consider the
11 alignment of the cathode and anode relative to each
12 other?
13 MR. DOUGLAS: Object to form.
14 THE DEPONENT: Yes.
15 BY MR. FITZSIMMONS:
16 Q. How precise does the alignment need to be for
17 the cell to function safely and effectively?
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: Well, that depends on a number of
20 design parameters. There is no, like, you know, general
21 rule. Typically, the anode is a millimeter on each side
22 around larger than the cathode and the separator is
23 another millimeter, but there is no fixed rules.
24 BY MR. FITZSIMMONS:
25 Q. What risks arise if the cathode and the anode

1 are not properly aligned?
2 MR. DOUGLAS: Object to form.
3 BY MR. FITZSIMMONS:
4 Q. In the cell.
5 A. In -- can you -- not aligned in which way?
6 Q. Relative to each other.
7 A. So you are talking about the overlap facing each
8 other.
9 You can have -- you know, once again, you are
10 pulling lithium out of the cathode. You can see edge
11 effects or, you know, maybe even the can. So you would
12 have to be more specific, but it's those kinds of things
13 that you are worried about.
14 Q. When you say "edge effects," what do you mean by
15 that?
16 A. Edge effects on the current collector or even --
17 if -- you know, it really depends on the cell design, so
18 you would have to be more specific for me to -- to
19 really zero in.
20 Q. Okay. Sorry. You used the term "edge effect,"
21 so I'm just wondering. You said you can see edge
22 effect, so I'm just wondering what you meant by that
23 term.
24 A. Yeah, that -- what I meant by that is that, say,
25 if you have your cathode overlapping the edge of your

1 anode, so it sees the current collector --
2 Q. Uh-huh.
3 A. -- you -- you can potentially have problems
4 there.
5 Q. Okay. Can misalignment of the anode and cathode
6 cause internal stresses within the battery?
7 MR. DOUGLAS: Object to form.
8 THE DEPONENT: What kind of stresses?
9 BY MR. FITZSIMMONS:
10 Q. Pressure points on the materials.
11 A. So pressure, you mean, in between the -- the
12 compression of the anode and the cathode?
13 Q. Right.
14 A. Well, it would depend on the construction of the
15 cell.
16 Q. What would it depend on?
17 MR. DOUGLAS: Object to form.
18 THE DEPONENT: Well, is the cell under
19 compression, for one thing. In other words, is it
20 constrained? That depends on your form factor. It is
21 radically different in a cylindrical than it is, say, in
22 a pouch cell.
23 BY MR. FITZSIMMONS:
24 Q. Can misalignment of the anode and cathode
25 increase the likelihood of lithium plating?

1 A. In the way you described it previously -- I
2 would have to look at the design.
3 Q. Okay. Let's look at the '498 patent, which I
4 think you already have in front of you on there.
5 A. Uh-huh. Yeah.
6 Q. It's Exhibit 1001.
7 A. Okay.
8 Q. And let's look at Figure 5.
9 A. Okay.
10 Q. And Figure 5, reference No. 1 is the positive
11 plate of the cathode, correct?
12 A. I would have to look at --
13 Q. Yeah, if you need to look back at the paragraphs
14 there and -- for the reference numbers, feel free.
15 A. Not sure where it is. Okay.
16 Q. The bottom of column 4, top of column 5 might be
17 helpful for some of those reference numbers for you.
18 A. Okay. Here is the... okay. So, yep, positive
19 plate is 1.
20 Q. Okay. And the negative plate or anode is
21 labeled 2. Is that right?
22 A. Yes.
23 Q. And reference No. 16 there is what's called the
24 second insulating glue layer.
25 A. Yes, pasted with a second insulated glue layer.

1 Q. Okay. So referring to Figure 5, if the positive
2 and negative plates are misaligned so that the second
3 insulating glue layer there, 16, is not entirely
4 opposite from the negative lead, which is No. 23 --
5 A. Uh-huh.
6 Q. -- disposed in what's called that second
7 recess --
8 A. Uh-huh.
9 Q. -- that would increase the likelihood of lithium
10 plating, right?
11 MR. DOUGLAS: Object to form.
12 THE DEPONENT: Misaligned in what way?
13 BY MR. FITZSIMMONS:
14 Q. Here, we will call it the -- it's the width
15 direction. So looking at Figure 5, left and right.
16 A. Left and right on the figure.
17 MR. DOUGLAS: Same objection. Excuse me.
18 THE DEPONENT: So you are saying if I look at
19 16, for instance, and I move that to the left relative
20 to 23?
21 BY MR. FITZSIMMONS:
22 Q. Correct. If you moved -- so I will -- I will
23 phrase the question.
24 If you moved 16, which is the second insulating
25 glue layer, to the left such that it was -- was not

1 entirely opposite from that negative lead, 23, that
2 would increase the likelihood of lithium plating.
3 MR. DOUGLAS: Object to form.
4 BY MR. FITZSIMMONS:
5 Q. Right?
6 A. So how far are you going to move it?
7 Q. So that it's not entirely opposite from that
8 negative --
9 A. So you are saying the one edge of 16 would be
10 displaced from the other edge of 23 as you moved it
11 left.
12 Q. Correct.
13 A. Yeah, it would.
14 Q. And that is because there would be exposed
15 active material opposite that lead 23 and the recess
16 that it's in, correct?
17 A. Yeah.
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: Yeah, no, it wouldn't
20 automatically result in plating, but it would increase
21 the likelihood.
22 BY MR. FITZSIMMONS:
23 Q. In battery -- lithium-ion battery design and
24 manufacture, do you want to account for potential
25 misalignment such as the one that we were just

1 discussing?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: Well, you -- you want to avoid
4 any situation, and you can do that either through, you
5 know, improving the efficiency of your equipment,
6 resolution of your equipment, the accuracy, or, you
7 know, increasing the size of the tape and things like
8 that.
9 BY MR. FITZSIMMONS:
10 Q. You mentioned tape. How is insulating tape
11 typically applied during lithium-ion battery
12 manufacturing process?
13 A. It's typically applied in the winder. And the
14 machine has a provision for applying the tape.
15 Q. And so it's done by a machine, correct?
16 A. Yeah. They are automated machines.
17 Q. Would you say that the use of insulating tape in
18 batteries is considered a reliable technique for
19 preventing lithium plating?
20 MR. DOUGLAS: Object to form.
21 THE DEPONENT: Reliable technique. It depends
22 on how good you are at it and what kind of tape you use.
23 BY MR. FITZSIMMONS:
24 Q. What do you mean by "it depends on how good you
25 are at it"?

1 A. How accurate, you know, you are. If your
2 machine is not good, you will have problems.
3 Q. And so accuracy is important in applying the
4 insulating tape during the manufacturing process. Is
5 that correct?
6 A. Yes.
7 Q. And why is that accuracy important?
8 A. Well, as --
9 MR. DOUGLAS: Object to form.
10 Go ahead.
11 THE DEPONENT: As you said before, if you had,
12 say, an extreme misalignment or, you know, you put your
13 tab in the wrong place, or any of that kind of thing, or
14 if your winder is even winding too tight, you can have
15 problems. So it's -- it's important in many areas.
16 BY MR. FITZSIMMONS:
17 Q. In paragraph 66 of your first declaration -- so
18 this is Exhibit 2015.
19 A. What paragraph?
20 Q. Paragraph 66.
21 A. 66. Okay.
22 Q. So in paragraph 66 there of your first
23 declaration, you list some what you would call
24 advantages of using uncoated layers.
25 A. Uh-huh.

1 Q. Do you see that?
2 A. Yeah.
3 Q. Okay. What are some advantages associated with
4 applying insulating tab -- insulating tape over
5 selectively removing active material from the electrode
6 plate?
7 MR. DOUGLAS: Object to form.
8 THE DEPONENT: So you are saying compare the --
9 using tape versus just -- not using tape and removing
10 material.
11 BY MR. FITZSIMMONS:
12 Q. Right.
13 A. Well, the -- I mean, the advantages here that
14 Takamura points out are -- are certainly part of that
15 list.
16 Q. No, those are advantages for --
17 A. By un --
18 Q. -- removing active material, correct?
19 A. Well, it says by using uncoated layers and
20 removing the tape, then you get these advantages.
21 Q. Okay.
22 A. Yeah.
23 Q. What are some advantages associated with
24 insulating tape over removing active material?
25 MR. DOUGLAS: Object to form.

1 THE DEPONENT: I mean, removing active material
2 has the advantage of, you know, saving money, for one.
3 Tape, I think, is probably -- or potentially easier to
4 manufacture possibly, but it has a disadvantage of you
5 are introducing inactive material that's increasing the
6 thickness of your jelly roll.
7 BY MR. FITZSIMMONS:
8 Q. So there's tradeoffs between those two, in your
9 opinion?
10 A. Ah, yeah.
11 Q. Two common methods for selectively removing
12 active material to expose part of the current collector
13 are pattern coating and ablation. Is that right?
14 A. Yeah, pattern coating we would call patch
15 coating, but I think -- I think you are referring to the
16 same thing.
17 Q. Okay. Yes, patch coating or pattern coating?
18 A. Yeah.
19 Q. And ablation also?
20 A. Yeah, that can be mechanical or laser.
21 Q. Okay. Were those techniques known prior to
22 2014?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: Well, known versus implemented
25 are two different things. So ablation has, I think,

1 only become much more common in about the past ten
2 years. It was certainly known before that, but a lot of
3 times that was done through scraping, which is kind of a
4 primitive technique, if I -- if I might.
5 BY MR. FITZSIMMONS:
6 Q. And by "scraping," you mean like physical
7 removal --
8 A. Yeah.
9 Q. -- mechanical removal of the material. Is that
10 right?
11 A. Yeah.
12 Q. Let's first discuss pattern coating or, as you
13 call it, patch coating.
14 A. Uh-huh.
15 Q. Can you describe the process for patch coating
16 an active material onto a current collector?
17 A. Sure. You -- so you -- I'm just trying to think
18 of the terminology you used. But anyway, there is two
19 different ways to -- commonly used to coat active
20 material.
21 One is, like, reverse roll coating, which
22 includes something called doctor blades. So it is
23 basically a way of applying the material to -- to the
24 current collector. So the current collector comes
25 through the coating machine, the coating machine has

1 a -- a roll that applies it to another roll that's on --
2 that the current collector is on, so it gets coated onto
3 the foil.
4 So what happens when you patch coat there is the
5 roll that you have the doctor blade on -- you need a
6 picture to really show this, but it pulls back from the
7 current collector when you patch -- when you want a bare
8 patch. So in other words, it just doesn't apply the
9 active material to the current collector. That's --
10 that's the earliest, most common technique.
11 You can also have something called a slot die
12 coater. A slot die coater is basically -- it's almost
13 like extruding a toothpaste or something. So usually
14 the slurry is a little thicker, but it -- because, like
15 I say, you can imagine just stopping the application of
16 toothpaste, for instance, if you are putting in a -- so
17 that's slot die coating.
18 And then as you mentioned -- so I -- was your
19 question just how to apply it or...
20 Q. It was just describe the process for patch
21 coating --
22 A. Okay.
23 Q. -- an active material onto a current collector.
24 A. Okay. So I think that was covered in your
25 question.

1 Q. Okay. So -- and patch coating is in contrast to
2 a continuous coating process. Is that right?
3 A. Yeah. You are leaving open patches, if you
4 will.
5 Q. And does the patch coating or pattern coating
6 require specialized machinery relative to the continuous
7 coating technique?
8 MR. DOUGLAS: Object to form.
9 THE DEPONENT: Well, you would have to have a
10 machine that's capable of pulling back the coating head.
11 BY MR. FITZSIMMONS:
12 Q. And that machine that's pulling back the coating
13 head, it requires precise timing and -- and tight
14 tolerances in order to properly apply that active
15 material. Is that right?
16 MR. DOUGLAS: Object to form.
17 THE DEPONENT: Well, I don't know. "Tight" is a
18 kind of broad statement.
19 BY MR. FITZSIMMONS:
20 Q. Is "precise" a better word? Precise timing?
21 Precise tolerances?
22 A. I would say you want tolerancing that is
23 compatible with your, you know, overall size of
24 materials and so on. It kind of reflects back to the
25 whole cell design, but certainly you don't want grossly

1 inadequate or inaccurate.
2 Q. Does pattern coating increase the risk of uneven
3 edges of the active material?
4 MR. DOUGLAS: Object to form.
5 THE DEPONENT: Any time you have an edge in
6 lithium-ion, you have a potential problem. So, yeah, I
7 have actually manufactured using patch coating, and I --
8 we had very few problems with it. So I can't say it's
9 like a major problem area. It's just you always have to
10 be careful of an edge.
11 BY MR. FITZSIMMONS:
12 Q. And so we previously mentioned a laser ablation.
13 Can you describe that process for me of how that removes
14 active material?
15 A. Sure. So the coated current collector with the
16 uncoated active material is -- is basically scanned or
17 running underneath the laser head, I guess is the way
18 you think of it. And it -- the laser scans the --
19 across the area that you want to remove the material
20 and, by using sort of a high-powered pulse, ablates the
21 material.
22 Q. Are there any risks to damaging the electrode
23 plate when you use an ablation technique to remove
24 active material?
25 MR. DOUGLAS: Object to form.

1 THE DEPONENT: Is -- so define "electrode
2 plate." I usually just think of electrode.
3 BY MR. FITZSIMMONS:
4 Q. Sure. Electrode, the electrode. We can say --
5 when --
6 A. Is it cov --
7 Q. I'll rephrase that question.
8 Are there any risks to damaging the electrode
9 when you use an ablation technique to remove active
10 material?
11 A. And "electrode" means the coated current
12 collector?
13 Q. Correct.
14 A. Okay. Actually, the -- I think -- I mean, if
15 you -- if you have too high a power or too low a power,
16 obviously, on the laser you can cause a problem. And,
17 actually, the bigger problem is burrs on the current
18 collector, which can happen at the edge if the beam
19 isn't properly focused.
20 Q. You said the bigger problem is burrs. Why do
21 burrs present a problem in --
22 A. Well, think of a burr as like a sliver of metal.
23 And anytime you have a sliver, it can -- if it's in the
24 wrong orientation, it can poke through the separator and
25 cause a short.

1 Q. Okay. Let's -- I think you have your first
2 declaration open there.
3 A. Uh-huh.
4 Q. So Exhibit 2015, and let's turn to page 9,
5 please.
6 A. Okay.
7 Q. There is a section there, section 3, titled
8 "Legal Standards."
9 Do you see that?
10 A. I'm sorry, I'm on page 9. Did you mean para --
11 Q. Page 9 of Exhibit 2015.
12 A. Yeah. Okay. What I show is basically my
13 resume. What -- am I in the wrong spot?
14 Q. Oh, oh, I'm sorry, there's two numberings here.
15 It looks like there's -- on the bottom it says page 13
16 of 71, but there's also a number 9 at the bottom that I
17 am looking at.
18 A. Oh, I see.
19 Q. So why don't we go to paragraph 20.
20 A. Okay. I got it.
21 Q. I didn't realize there was two sort of
22 pagination markers there. Okay.
23 So I am on -- it says at the bottom page 13 of
24 71, and paragraph 20 should be on that page.
25 Do you see that?

1 A. Yeah.
2 Q. Okay. There's section 3, "Legal Standards"?
3 A. Uh-huh.
4 Q. Do you see that?
5 Okay. In the -- that section runs from
6 paragraph 20 through paragraph 36. Does this section
7 represent your understanding of the law as it relates to
8 the opinions in your declarations?
9 A. Yes.
10 Q. Okay. And paragraphs 30 through 36 --
11 A. Uh-huh.
12 Q. -- do those represent your understanding of
13 obviousness?
14 A. Yes.
15 Q. And you previously said that these legal
16 understandings were provided by counsel, right?
17 A. Yes.
18 Q. Okay. Did you apply this understanding of
19 obviousness in both of your declarations, your first
20 declaration, Exhibit 2015, and your second declaration,
21 Exhibit 2018?
22 A. Yes.
23 Q. Okay. And in paragraph 35 --
24 A. Uh-huh.
25 Q. -- you state you were informed about considering

1 secondary considerations when assessing obviousness.
2 Do you see that?
3 A. Uh-huh.
4 Q. Okay. Did you consider any secondary
5 considerations when assessing grounds 1 through 8 of the
6 petition?
7 MR. DOUGLAS: Object to form.
8 THE DEPONENT: Repeat the question, if you don't
9 mind.
10 BY MR. FITZSIMMONS:
11 Q. Did you consider any secondary considerations
12 when assessing grounds 1 through 8 of the petition?
13 A. Yes.
14 Q. Which ones?
15 A. Well, I mean, at least the first, I think, three
16 or four. Say the first three.
17 Q. And which are those?
18 A. Well, there's -- there's a need in the industry
19 for higher energy. Commercial success. If you achieve
20 higher energy, you will have commercial success. And
21 unexpected results, I think that's true, too.
22 Q. Did you provide any evidence of a long-felt but
23 unmet need in the prior art that was satisfied by the
24 alleged invention of the '498 patent?
25 A. Ah --

1 MR. DOUGLAS: Object to form.
2 THE DEPONENT: Sorry.
3 My -- my considerations are based on my
4 experience.
5 BY MR. FITZSIMMONS:
6 Q. Did you present any evidence of commercial
7 success of the processes covered by the '498 patent?
8 MR. DOUGLAS: Object to form.
9 THE DEPONENT: As I said, it's based on my
10 experience, but I think everybody knows that higher
11 energy is -- batteries don't have enough energy. Right?
12 Range in cars is too low and stuff like that.
13 BY MR. FITZSIMMONS:
14 Q. Did you provide any data, for example,
15 commercial sales numbers, that are tied to the alleged
16 invention in the '498 patent?
17 A. I wasn't --
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: I wasn't asked to.
20 BY MR. FITZSIMMONS:
21 Q. And same declaration, first declaration,
22 paragraph 51 through 54.
23 A. Uh-huh.
24 Q. You -- it's under the heading "Level of Ordinary
25 Skill in the Art."

1 Do you see those?
2 A. Yes.
3 Q. Okay. And so these paragraphs, you are
4 discussing a person of ordinary skill in the art,
5 sometimes with the acronym POSA, P-O-S-A, or sometimes
6 with the acronym P-O-S-I-T-A, POSITA?
7 A. Uh-huh.
8 Q. Correct?
9 A. Yes.
10 Q. In your understanding, what does it mean to be a
11 person of ordinary skill in the art?
12 A. It means that I have training and experience --
13 I think it says over two years somewhere -- and a, you
14 know, minimum kind of college degree, bachelor's of
15 science, master's of science, and have experience in
16 working in the industry.
17 Q. Okay. In paragraph 52 --
18 A. Uh-huh.
19 Q. -- you restate the petitioner's definition of
20 the person of ordinary skill in the art, correct?
21 A. Yes.
22 Q. Okay. And in paragraph 53, you adopt that
23 definition, correct?
24 A. Yeah, okay.
25 Q. And let's look in your second declaration --

1 A. Uh-huh.
2 Q. -- Exhibit 2018, paragraphs 14 and 15 --
3 A. Uh-huh.
4 Q. -- where you also discuss the level of ordinary
5 skill in the art.
6 Do you see that?
7 A. Yes.
8 Q. Okay. And there, you similarly acknowledge and
9 adopt the petitioner's level of ordinary skill in the
10 art, correct?
11 A. Yes.
12 Q. Since we are there, paragraph 14 of your second
13 declaration states that a POSA is presumed to be aware
14 of all pertinent art, correct?
15 A. Yes.
16 Q. Okay. And you agree that a POSA is presumed to
17 be aware of all pertinent art, right?
18 A. Yes.
19 Q. Okay. Paragraph 14 there also states that a
20 POSA possesses the understandings and knowledge
21 reflected in the prior art, correct?
22 A. Yes.
23 Q. Okay. And you agree that a POSA possesses the
24 understandings and knowledge reflected in the prior art,
25 right?

1 A. Yes.
2 Q. What was the level of ordinary skill provided by
3 the petitioner in the -- this proceeding?
4 A. What was the level of the ordinary skill?
5 Q. Let me refer you to paragraph 14 there, still.
6 So for the '49 -- it says "For the '498 patent"?
7 A. Uh-huh.
8 Q. Do you see that?
9 A. Yes.
10 Q. And it says:
11 "POSA at the time of the alleged invention would
12 have had a bachelor's degree in physics or an
13 engineering field relevant to battery technology," for
14 example -- or "e.g., electrical or mechanical
15 engineering, and at least two years of industry
16 experience in lithium-ion battery manufacturing and/or
17 design."
18 A. Uh-huh.
19 Q. Do you see that?
20 A. Yes.
21 Q. Do you agree that is the appropriate level of
22 skill for a person of ordinary skill in the field of the
23 '498 patent?
24 A. Well, it -- it would depend on his two years of
25 industry experience.

1 Q. So here it says two years of industry experience
2 in lithium-ion battery manufacturing and/or design.
3 A. Yeah, but -- so that, that could do it.
4 Q. So you agree that's the appropriate level of
5 skill for a person of ordinary skill in the art in the
6 field of the '498 patent?
7 A. I would probably narrow it down a little bit to
8 make -- you know, what type of manufacturing and design.
9 So was he in cell design? Or was he in equipment
10 design? So this is a broader statement, you know.
11 Q. How would you narrow it?
12 A. Well, like I said, I mean, you know, for
13 instance, the '498 patent relates to tabs, right? So
14 if -- if he -- his experience was in chemistry, cell
15 chemistry, it would not be as pertinent as, say,
16 somebody that was a cell designer, we call them.
17 Q. So do you disagree with the level of ordinary
18 skill in the art that's --
19 A. No.
20 Q. -- presented here?
21 A. I'm just saying it -- this is a broader
22 statement, and, you know, if you wanted to, you could
23 narrow it down. But -- so it's not wrong, but I would
24 probably be a little bit more narrow in the definition.
25 Q. Why did you not provide your own definition of a

1 person of ordinary skill then?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: Because this is not inaccurate.
4 I mean, it's not wrong.
5 BY MR. FITZSIMMONS:
6 Q. Is this a level of ordinary skill that you
7 applied in forming your opinions about the '498 patent
8 and the prior art that you discuss?
9 MR. DOUGLAS: Object to form.
10 THE DEPONENT: Well, I have 35 years of
11 experience in lithium-ion. I think that qualifies.
12 BY MR. FITZSIMMONS:
13 Q. But in analyzing the '498 patent and the prior
14 art --
15 A. Uh-huh.
16 Q. -- at issue in this proceeding, is this the
17 level of ordinary skill that you applied to that
18 analysis?
19 A. I think I already answered that.
20 Q. How did you answer that?
21 MR. DOUGLAS: Object to form.
22 THE DEPONENT: Well, I said -- so that -- so I'm
23 not sure what your question is, I guess. I am
24 definitely qualified, under these requirements, to
25 analyze this patent.

1 BY MR. FITZSIMMONS:
2 Q. So in paragraph 16 of your declaration, which is
3 the second declaration -- so we are on Exhibit 2018.
4 Paragraph 16, you say:
5 "Each of the arguments below should be
6 considered from the perspective of a POSITA in the field
7 of the '498 patent during the relevant time frame."
8 Do you see that?
9 A. Uh-huh. That's right.
10 Q. So is the level of skill provided in paragraph
11 14 the level of skill of the POSITA from whose
12 perspective you are considering the arguments in your --
13 A. Well, you're asking about --
14 Q. -- declaration?
15 A. I'm sorry, go ahead, finish.
16 Yeah. Well, I certainly qualify for this. I
17 don't understand what you're asking. Are you saying I
18 am not qualified? What are you saying?
19 Q. I'm asking you: When you are -- when you are
20 undertaking an obviousness analysis --
21 A. Uh-huh. Uh-huh.
22 Q. -- do you understand that you are to view your
23 analysis through the lens of the person of ordinary
24 skill in the art at the time of the alleged invention?
25 A. Oh, definitely.

1 Q. And so you are not looking through the lens of
2 an expert in the field.
3 Do you understand that?
4 A. Well, I mean -- so you are saying you'd have
5 some guy off the street look through this? I don't
6 understand what you are trying to say. I mean, is it
7 sort of a legal definition or something? I have no --
8 abso -- I am absolutely qualified to judge this patent.
9 Let me just put it that way. I have 35 years of
10 experience. I have all these degrees. You know, I
11 don't see how I could -- it would be an issue.
12 THE DEPONENT: What time is it?
13 MR. FITZSIMMONS: 11:15.
14 THE DEPONENT: Oh, okay.
15 MR. FITZSIMMONS: Do you need a break soon?
16 THE DEPONENT: Maybe in another 15, 20 minutes
17 or so.
18 BY MR. FITZSIMMONS:
19 Q. Okay. Let's look at your first declaration, so
20 back to Exhibit 2015. And paragraph 32. Can you read
21 paragraph 32 for me, please?
22 A. Sure.
23 "I understand a person of ordinary skill in the
24 art provides a reference point from which the prior art
25 and claimed invention should be viewed. This reference

1 point prevents one from using his or her own insight or
2 hindsight in deciding whether a claim is obvious."
3 Q. Okay. And so in your analysis of the '498
4 patent and the prior art at issue here --
5 A. Uh-huh.
6 Q. -- did you use the person of ordinary skill in
7 the art as the reference point from which the prior art
8 in the claimed invention was viewed?
9 MR. DOUGLAS: Objection. Asked and answered.
10 THE DEPONENT: So are you asking about me or
11 some generic person? I'm...
12 BY MR. FITZSIMMONS:
13 Q. What's your understanding of the person of
14 ordinary skill in the art?
15 A. Well, I think as I said before, it's somebody
16 that has the training and experience to understand, you
17 know, the technology. Right?
18 Q. And is that person's understanding the
19 understanding that you applied when looking at the prior
20 art in the '498 patent?
21 MR. DOUGLAS: Objection. Asked and answered.
22 THE DEPONENT: I'm not sure where this is going.
23 Basically, I looked at this invention. I think there is
24 an invention here. That's based on my experience, both
25 in manufacturing, you know, and developing, building,

1 mar -- you know, marketing cells.
2 BY MR. FITZSIMMONS:
3 Q. And so is that -- your opinions are based on
4 your experience and not through the lens of the person
5 of ordinary skill. Is that correct?
6 MR. DOUGLAS: Objection to form.
7 THE DEPONENT: Well, I am certainly a person of
8 ordinary skill.
9 BY MR. FITZSIMMONS:
10 Q. Do you have higher than a level of ordinary
11 skill in the art?
12 MR. DOUGLAS: Object to form.
13 THE DEPONENT: What's an ordinary -- what does
14 "ordinary" mean in that regard?
15 BY MR. FITZSIMMONS:
16 Q. As it's used here. You are talking about the
17 person of ordinary skill in the art, and you have
18 adopted a definition of that person --
19 A. Uh-huh.
20 Q. -- that has --
21 A. Are you saying --
22 Q. -- one --
23 A. -- I'm too skilled? I don't quite get --
24 Q. That a -- you say in paragraph 14 of your second
25 declaration --

1 A. Uh-huh.
2 Q. -- for the '498 patent:
3 "A POSA at the time of the alleged invention
4 would have had a bachelor's degree in physics or an
5 engineering field relevant to battery technology" --
6 A. Uh-huh.
7 Q. -- "e.g., electrical or mechanical engineering,
8 and at least two years of industry experience in
9 lithium-ion battery manufacturing and/or design."
10 Correct?
11 A. Uh-huh.
12 Q. Okay. Is that the level of ordinary skill that
13 you applied in your analysis in your declarations?
14 MR. DOUGLAS: Object to form.
15 You can answer.
16 THE DEPONENT: What's that?
17 MR. DOUGLAS: You can answer.
18 THE DEPONENT: Oh. Well, I qualify under that,
19 so...
20 BY MR. FITZSIMMONS:
21 Q. I'm not asking if you qualify under that. I'm
22 asking if that's the level of skill that you applied in
23 your analysis in your declarations.
24 A. Well, I --
25 MR. DOUGLAS: Object to form. Asked and

1 answered.
2 THE DEPONENT: Well, I certainly applied that
3 and more.
4 BY MR. FITZSIMMONS:
5 Q. What do you mean, "and more"?
6 MR. DOUGLAS: Object to form.
7 THE DEPONENT: Well, I have more years of
8 experience.
9 BY MR. FITZSIMMONS:
10 Q. When assessing obviousness in your
11 declarations --
12 A. Uh-huh.
13 Q. -- did you form your opinions from the
14 perspective of someone having 2 years of experience in
15 the relevant field or someone having 35 years of
16 experience in the field?
17 A. It would --
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: Oh, sorry.
20 It would depend on the two years of experience.
21 BY MR. FITZSIMMONS:
22 Q. What would it depend on?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: What kind of experience.
25 ///

1 BY MR. FITZSIMMONS:
2 Q. What do you mean by "what kind of experience"?
3 A. Well, I already answered that. I said that
4 basically if it -- if the person was, you know, a
5 chemist versus a cell designer, right? I said this --
6 it -- this statement isn't wrong, but it can be further
7 refined.
8 Q. Okay. I'm not sure which declaration you have
9 open, but -- so let's look at your first declaration,
10 Exhibit 2015, in paragraph 33.
11 A. Okay. 2015.
12 Q. And in paragraph 33, you state:
13 "I understand that in order to show obviousness
14 based on a single reference or a combination of
15 references, a particular motivation to modify the
16 reference or combine the teachings in the references and
17 a reasonable expectation of success must be shown."
18 Do you see that?
19 A. Yes.
20 Q. Is it your understanding that the motivation to
21 modify or combine teachings of references needs to be
22 stated in the references themselves?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: Say that again. I'm sorry.
25 ///

1 BY MR. FITZSIMMONS:
2 Q. Uh-huh.
3 A. I didn't get it.
4 Q. I said is it your understanding that the
5 motivation to modify or combine teachings of references
6 needs to be stated in the references themselves?
7 A. Stated -- ah, no, no.
8 Q. Okay. What does it mean to have a reasonable
9 expectation of success?
10 A. In the context of this, it would mean that you
11 would have a technology that's viable and -- and
12 working.
13 Q. And so your understanding is that in order to
14 have a reasonable expectation of success, the technology
15 must be capable of actually working in practice. Is
16 that correct?
17 A. That's correct.
18 Q. We have, I believe, your first declaration still
19 open there?
20 A. Uh-huh.
21 Q. Okay. So let's go to paragraph 21. There is a
22 heading "Claim Construction" above that.
23 Do you see that?
24 A. Yes.
25 Q. Okay. Do paragraphs 21 through 25 provide your

1 understanding of claim construction, Mr. Kaschmitter?
2 A. Yes.
3 Q. And in paragraph 23, you state that you reviewed
4 the prosecution history of the '498 patent, correct?
5 A. That's right.
6 Q. Okay. And did the prosecution history of the
7 '498 patent inform your opinions as to how the claims of
8 the '498 patent should be interpreted?
9 A. No.
10 Q. Are there any -- strike that.
11 In paragraph 24 --
12 A. Uh-huh.
13 Q. -- you state that you understand that claim
14 terms are to be given their ordinary and customary
15 meaning, as understood by a person of ordinary skill in
16 the art, correct?
17 A. Yes.
18 Q. Did you apply the ordinary and customary --
19 ordinary and customary meaning of the terms in the
20 claims of the '498 patent?
21 A. Yes.
22 Q. Were there any terms in the claims of the '498
23 patent that you did not understand?
24 A. No.
25 Q. Does the '498 patent provide any special

1 definitions for terms in the claims?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: Does the '498 patent apply any
4 special terms? Is that what you said?
5 BY MR. FITZSIMMONS:
6 Q. I said does the '498 patent provide any special
7 definitions for terms in the claims?
8 MR. DOUGLAS: Object to form.
9 THE DEPONENT: It -- I think it does for some,
10 but not all necessarily.
11 BY MR. FITZSIMMONS:
12 Q. What terms do you think that the '498 patent
13 provides a special definition for?
14 A. Gosh, I'd have to go back and review them, I'm
15 sorry. I don't have that -- the -- well, I mean, for
16 instance, it says:
17 "Specifically, the first plate is a positive
18 plate."
19 That's a definition.
20 Q. Are there any terms in the '498 patent -- are
21 there any terms in the claims of the '498 patent that --
22 you know, let's have the '498 patent, which you have
23 there in front of you, I believe, Exhibit 1001, then the
24 claims on the last --
25 A. Uh-huh.

1 Q. -- page there. Right?
2 A. Okay.
3 Q. And so the claims start in column 10, about line
4 42 or so, with Claim 1.
5 My question is: Are there any terms in the
6 claims of the '498 patent that are provided a special
7 definition that is different than the ordinary and
8 customary meaning of that term?
9 MR. DOUGLAS: Object to form.
10 THE DEPONENT: Well, I think if I understand
11 your question right, you know, for instance -- I mean,
12 I -- you know, like when it says "second recess," that's
13 not how we would refer to a -- it's special to the
14 terminology he is using in the patent.
15 BY MR. FITZSIMMONS:
16 Q. What term would you use instead of "a second
17 recess"?
18 MR. DOUGLAS: Object to form.
19 THE DEPONENT: It would be the negative tab
20 recess.
21 BY MR. FITZSIMMONS:
22 Q. Let's look back in your declaration,
23 Exhibit 2015, your first declaration, and in paragraph
24 26.
25 A. Uh-huh.

1 Q. You desc -- you -- you include the term
2 "priority date."
3 Do you see that?
4 A. Yes.
5 Q. Okay. And you state that:
6 "I understand that the priority date of a patent
7 is the date on which it is filed or the date on which an
8 earlier-filed patent application is filed if the patent
9 claims the benefit of priority to that earlier-filed
10 patent application."
11 Do you see that?
12 A. Yes.
13 Q. Okay. Did you evaluate the priority date of the
14 '498 patent?
15 A. What do you mean by "evaluate"? I mean, I am
16 aware of it. Is that what you are asking?
17 Q. What do you believe the priority date of the
18 '498 patent to be?
19 MR. DOUGLAS: Object to form.
20 THE DEPONENT: It is the foreign application
21 priority data, January 17, 2014.
22 BY MR. FITZSIMMONS:
23 Q. And so you are referring to the first page of
24 the '498 patent, where it says "Foreign Application
25 Priority Data." Is that right?

1 A. Yeah.
2 Q. Okay. And that date there is January 17th,
3 2014?
4 A. Yeah.
5 Q. And that refers to a Chinese application
6 201420030319.4, correct?
7 A. Yes.
8 Q. Okay. Why do you believe that to be the
9 priority date of the '498 patent?
10 MR. DOUGLAS: Object to form.
11 THE DEPONENT: That was just my understanding.
12 BY MR. FITZSIMMONS:
13 Q. How is that your understanding?
14 A. I -- I -- I'm not a lawyer, so -- okay?
15 Q. Why is that your understanding?
16 MR. DOUGLAS: Object to form.
17 THE DEPONENT: Well, counsel.
18 BY MR. FITZSIMMONS:
19 Q. Counsel what?
20 MR. DOUGLAS: Objection.
21 And just caution the witness --
22 THE DEPONENT: Okay.
23 MR. DOUGLAS: -- to not divulge any privileged
24 information, but you can answer.
25 THE DEPONENT: 2014 was just the date I was told

1 to look, you know, for prior art.
2 BY MR. FITZSIMMONS:
3 Q. Okay. Have you reviewed that document there,
4 Chinese application 201420030319.4?
5 A. No.
6 Q. Have you reviewed a translation of that
7 document?
8 A. No.
9 MR. FITZSIMMONS: We've been going about an hour
10 and a half. Would now be a good time for a quick break?
11 THE DEPONENT: Yeah, sure, that would be fine.
12 (A recess transpires.)
13 MR. FITZSIMMONS: All right. We are back,
14 Mr. Kaschmitter. Let's take the '498 patent back out.
15 I believe 1001.
16 THE DEPONENT: Uh-huh.
17 MR. FITZSIMMONS: And if you could turn to
18 Figure 1, please.
19 THE DEPONENT: Okay.
20 BY MR. FITZSIMMONS:
21 Q. In Figure 1 of the '498 patent, it shows a
22 positive electrode plate, correct?
23 A. I'm sorry, I always have to go look at these
24 numbers. Let's see. Where was the definitions I -- you
25 told me before, I think. Ah, here they are.

1 Q. Top of column 5 has a lot of them.
2 A. Yeah. So, yeah, positive plate is 1 in that
3 figure.
4 Q. And Figure 1 shows that the positive electrode
5 plate includes a current collector, positive current
6 collector indicated by No. 11, correct?
7 A. Yes.
8 Q. And there is a film of positive, active
9 material, indicated by No. 12, coated on the current
10 collector, correct?
11 A. Yes.
12 Q. And Figure 1 shows that the positive electrode
13 plate includes a recess indicated by No. 14, defined in
14 the positive film, correct?
15 A. Yeah.
16 Q. And it's, I think, also called "first recess
17 14," correct?
18 A. Yeah, yep.
19 Q. A person of ordinary skill in the art looking at
20 Figure 1 of the '498 patent here --
21 A. Uh-huh.
22 Q. -- would understand that that recess 14 has some
23 width in the left and right direction, correct?
24 MR. DOUGLAS: Object to form.
25 THE DEPONENT: In terms of the width of the

1 recess?
2 BY MR. FITZSIMMONS:
3 Q. Correct.
4 A. Yes.
5 Q. Figure 1 also shows that there is a positive
6 lead, indicated by No. 13, disposed in that recess 14,
7 correct?
8 A. Yes.
9 Q. Okay. And a person skilled in the art looking
10 at Figure 1 would understand that the positive lead in
11 the recess has a width that is smaller than the width of
12 the recess, correct?
13 A. Yes.
14 Q. Figure 1 shows that the positive electrode plate
15 includes a first insulating glue layer, indicated by
16 reference No. 15, correct?
17 A. (Reads to self.)
18 That -- yeah, that -- yes, okay.
19 Q. And that first insulating glue layer No. 15 is
20 located over the positive lead 13 and recess 14,
21 correct?
22 A. Yes.
23 MR. DOUGLAS: Object to form.
24 BY MR. FITZSIMMONS:
25 Q. And Figure 1 shows the insulating glue layer 15

1 extends beyond the width of recess 14 on both the left
2 and right sides of the recess, correct?
3 A. It -- you know, it's not a -- there is no
4 dimensions or anything, but, you know, looking at it
5 just purely as a -- an image, you know, like an artist's
6 image or something, it does appear that they extend
7 past.
8 Q. Okay. In your opinion, would a person of
9 ordinary skill in the art looking at Figure 1 understand
10 that the insulating glue layer 15 is shown as having a
11 width that is greater than the width of the recess?
12 MR. DOUGLAS: Object to form.
13 THE DEPONENT: I don't -- I don't see a
14 definition of it. I would say that, you know, looking
15 at this, it could be wider than the width of the recess.
16 BY MR. FITZSIMMONS:
17 Q. The tape is wider than the -- the width of the
18 tape is wider than the width of the recess, correct?
19 A. That -- that's what it appears like, yeah.
20 Q. From your understanding, why would a person of
21 ordinary skill in the art want the insulating glue layer
22 15 to extend beyond the width of the recess 14?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: If -- if you -- if you couldn't
25 supply the tolerancing to make it tighter or you just

1 wanted to be careful, you'd make it bigger.
2 BY MR. FITZSIMMONS:
3 Q. What would happen if the insulating glue layer
4 15 had a width that was narrower than the recess?
5 MR. DOUGLAS: Object to form.
6 THE DEPONENT: It would depend on, you know, the
7 details of the design, in terms of the depth of the
8 recess, the -- you know, the height of the lead.
9 BY MR. FITZSIMMONS:
10 Q. And how would those impact what would happen if
11 the insulating glue layer had a width that was narrower
12 than the recess?
13 A. So you are saying "narrower." So do you mean
14 the same as or less than?
15 Q. Less than. How would -- what would -- let me
16 rephrase, then.
17 What would happen if the insulating glue layer
18 had a width that was less than the width of the recess?
19 MR. DOUGLAS: Object to form.
20 THE DEPONENT: It's not less than or equal to --
21 how much less, I guess? I'm sorry, I'm not trying to be
22 hard.
23 BY MR. FITZSIMMONS:
24 Q. Uh-huh. Uh-huh.
25 A. I'm just trying to understand.

1 Q. Yeah.
2 A. There is no tolerancing or anything here, so
3 I -- I can't tell you for --
4 Q. What do you mean by "there is no tolerancing"?
5 A. Well, this is just an artist's conception.
6 Q. Uh-huh. What do -- what do you mean by the term
7 "tolerancing"? is my question.
8 A. "Tolerancing" would mean if it's less than, how
9 much less than?
10 Q. If the tape was 10 percent less than the width
11 of the recess.
12 A. So the width --
13 MR. DOUGLAS: Object to form.
14 THE DEPONENT: -- of the tape is 10 percent less
15 than the width of the -- the recess?
16 MR. FITZSIMMONS: Yes.
17 MR. DOUGLAS: Same objection.
18 THE DEPONENT: Okay. And so what's the
19 question?
20 BY MR. FITZSIMMONS:
21 Q. My question is: If the tape is -- the width of
22 the tape is 10 percent less than the width of the
23 recess, what impact would that have on the design here?
24 MR. DOUGLAS: Object to form.
25 THE DEPONENT: Well, it -- so this is in the

1 positive, right? So then there would be exposure of the
2 edges of the recess to the electrolyte face and the
3 negative facing across from the positive.
4 BY MR. FITZSIMMONS:
5 Q. And are there any problems that could result
6 from that?
7 MR. DOUGLAS: Object to form.
8 THE DEPONENT: The only thing is you might
9 access ions from the edge of the recess. It's really
10 the negative that -- where plating can occur, so --
11 plating can't occur on the positive, so you're not going
12 to have plating there. You might have some potential
13 reactions from the edges of the positive active
14 material.
15 BY MR. FITZSIMMONS:
16 Q. And so if this was the negative plate in that
17 scenario --
18 A. Uh-huh.
19 Q. -- where the width of the tape was less than the
20 width of the recess, that could result in lithium
21 plating. Is that what you're saying?
22 MR. DOUGLAS: Object to form.
23 THE DEPONENT: Is that your 10 -- I'm sorry,
24 what? Oh, is that your 10 percent number?
25 MR. FITZSIMMONS: Yes.

1 MR. DOUGLAS: Same objection.
2 THE DEPONENT: It increases the likelihood of
3 plating because you're exposing bare metal underneath
4 the tape around the -- you're not blocking it around the
5 edges, I guess is the right way to say it.
6 BY MR. FITZSIMMONS:
7 Q. Okay. And so in order to prevent lithium
8 plating, you would want to block around the edges of
9 that recess, correct?
10 MR. DOUGLAS: Object to form.
11 THE DEPONENT: You -- you want to prevent
12 exposure of a negative current collector to lithium ions
13 during charge.
14 BY MR. FITZSIMMONS:
15 Q. And that's for the negative plate, right?
16 A. Uh-huh.
17 Q. You mentioned tolerances. I just want to -- or
18 tolerancing. Manufacturers of battery components, is
19 there like an industry standard in terms of tolerances
20 or tolerancing that they work with?
21 MR. DOUGLAS: Object to form.
22 THE DEPONENT: Not that I am aware of. I mean,
23 the closest thing would be like -- I think it's IEEE
24 1625 has some specifications, but they are -- each
25 manufacturer kind of develops them on his own.

1 BY MR. FITZSIMMONS:
2 Q. What order of magnitude are the tolerances in
3 the manufacturing process?
4 A. It -- I mean, it depends on each manufacturer,
5 what equipment they're using, you know, a number of
6 factors. I -- so I can't answer it. There is no
7 general, you know, number that I could give you or --
8 Q. Are we talking about millimeter scale or less?
9 MR. DOUGLAS: Object to form.
10 THE DEPONENT: You know, I haven't done this
11 specifically, so I -- I'm not aware of the standard, so
12 I really can't answer.
13 BY MR. FITZSIMMONS:
14 Q. Okay. In the '498 patent, Exhibit 1001, let's
15 go to column 1, lines 49 through 59. I will give you a
16 moment to get there.
17 A. Column 1, 49 through -- so the Chinese patent?
18 Q. Beginning with "Chinese patent publication."
19 A. Okay.
20 Q. Do you see that?
21 A. Yep.
22 Q. Starting at about line 54 --
23 A. Uh-huh.
24 Q. -- do you see where it says:
25 "When the recess is defined at one end of the

1 positive plate or the negative plate along a length
2 direction thereof, thickness variation around the recess
3 is much larger than the thickness variation of the film
4 afar from the recess"?
5 A. Yes.
6 Q. Okay. Here, the '498 patent is characterizing a
7 recess that is located at one end of the positive or
8 negative plate, correct?
9 A. What is the -- what's the terminology he used?
10 When the recess is defined to one end of the positive
11 plate. Okay, that's what he's saying.
12 Q. Okay. And so my question was: Here, the '498
13 patent is characterizing a recess that is located at one
14 end of the positive or negative plate, correct?
15 MR. DOUGLAS: Object to form.
16 THE DEPONENT: Well, I'm just repeating what it
17 said. It says a recess is defined at one end of the
18 positive plate.
19 BY MR. FITZSIMMONS:
20 Q. And so this disclosure here is characterizing a
21 bare end of an electrode that receives a lead as a
22 recess, correct?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: Well, a bare end -- I wouldn't
25 call a bare end a recess.

1 BY MR. FITZSIMMONS:
2 Q. But right here, the '498 patent is saying that
3 there is a recess defined at one end of the positive or
4 negative plate, correct?
5 A. Yes, but it doesn't define "end."
6 Q. What do you interpret it to mean by "end"?
7 A. Well, to me a recess has to have two or more
8 sides.
9 Q. So then what, in your mind, does this mean when
10 it says the recess is defined at one end of the positive
11 plate or the negative plate?
12 A. To me it would mean he had a recess near the end
13 of the positive plate.
14 Q. In that same paragraph we were just talking
15 about, it's column 1 that starts at line 49, there's two
16 Chinese patent application -- excuse me, two Chinese
17 patent publication numbers.
18 Do you see those?
19 A. Yes.
20 Q. Okay. It is CN202495523U and CN201087907Y,
21 correct?
22 A. Yeah.
23 Q. Have you reviewed either of those Chinese patent
24 publications?
25 A. No.

1 Q. Have you reviewed translations of either of
2 those documents?
3 A. No.
4 Q. Let's go into your declaration again.
5 A. Uh-huh.
6 Q. Your first declaration, Exhibit 2015, and
7 paragraph -- one moment. I'm sorry, actually, let's
8 continue with the '498 patent. I'm sorry about that.
9 A. Okay.
10 Q. Okay. And so Exhibit 1001, the '498 patent,
11 Claim 1, at the end.
12 A. Okay. Got it.
13 Q. I will give you a moment to --
14 A. I found it.
15 Q. Okay.
16 A. Yeah.
17 Q. Does Claim 1 of the '498 patent specify the
18 location of the first or second recess along the
19 electrode plate?
20 MR. DOUGLAS: Object to form.
21 THE DEPONENT: I'm sorry, I'm just checking to
22 make sure.
23 BY MR. FITZSIMMONS:
24 Q. Uh-huh.
25 A. Claim 1 doesn't specify the location on the

1 electrode.
2 Q. Claim 2 of the '498 patent. Does Claim 2
3 specify the location of the first and second recess
4 along the electrode plate?
5 A. Yes.
6 Q. And where does Claim 2 specify that the location
7 of the first electrode plate -- excuse me. Where does
8 Claim 2 specify that the location of the first recess is
9 along the electrode plate?
10 A. One-quarter to three-quarters of a length of the
11 positive electrode active material layer.
12 Q. Okay. And where does Claim 2 specify the
13 location of the second recess along the electrode plate?
14 A. Okay. Let's see. I'm sorry, yeah, one-quarter
15 to three-quarters of the length --
16 Q. Okay.
17 A. -- of the negative.
18 Q. Okay. In your opinion, does the term "recess"
19 in the claims of the '498 patent exclude recesses from
20 being located at the ends of the electrode plate?
21 MR. DOUGLAS: Object to form.
22 THE DEPONENT: Well, my definition of a recess,
23 as I said, was it had two or more sides.
24 BY MR. FITZSIMMONS:
25 Q. So can a recess be located at an end of an

electrode plate?

MR. DOUGLAS: Object to form. Asked and answered.

THE DEPONENT: If it had two or more sides.

BY MR. FITZSIMMONS:

Q. In your experience, have you ever seen a recess located at the end of an electrode plate?

MR. DOUGLAS: Object to form.

THE DEPONENT: At the end. Toward -- you mean -- I have seen recesses defined near the end, I guess I would say.

BY MR. FITZSIMMONS:

Q. When you say "near the end," what does that mean?

A. It means in the overall length of the electrode, it was close to one of the ends. And the ra- -- that -- sometimes in a pouch cell, you will see the electrodes close to the end because they are trying to put the electrodes near the surface of the pouch.

Q. How close --

A. Within millimeters.

Q. -- would that be to the end?

A. Millimeters. You define what's called a cup. It facilitates sealing.

Q. You said a cup?

1 A. Yeah, you form a cup in the pouch material.
2 Q. What is a cup?
3 A. You take a piece of pouch material and you use
4 a -- what's the right word? -- tool, I guess, to form
5 a -- a cup, you know, like a cup, and with a specific
6 shape. And it -- then you can seal the top better
7 because you just put a flat piece on top.
8 Q. What does that cup do? Does it remove material?
9 A. Well, if you have a -- a thick -- a fairly
10 thick, you know, cell, the way you take a -- make a
11 pouch cell is you take two pieces of this -- it's really
12 like an aluminized, you know, plastic polymer sheet.
13 They are actually more complicated than that, but -- and
14 you press it around the -- the jelly roll, and then you
15 seal it.
16 If it's too thick, it has trouble bending, you
17 know. So you don't want that because that can mess up
18 your seal. So then what you do is you form a cup that's
19 deep enough, and then put a flat sheet over the top, so
20 the jelly roll goes inside of the cup. So the edge of
21 the jelly roll is at the top of the cup. And just
22 facilitates sealing and helps seal the leads.
23 Q. Okay. In your second declaration now,
24 Exhibit 2018, we'll say paragraph 20 -- I was going to
25 say page 7, but that's page 11 of 52. But paragraph

1 20 --
2 A. Okay.
3 Q. -- to help you find it easier.
4 A. Yep.
5 Q. Okay. Before paragraph 20 there, you have the
6 heading "Takamura teaches away from the arrangement of
7 tape in Figures 8 and 9."
8 Do you see that?
9 A. Yes.
10 Q. Okay. And then paragraph 20 refers to
11 paragraphs 58 through 71 of your first declaration,
12 which is Exhibit 2015, that relate to your position that
13 Takamura teaches away from the proposed modifications,
14 correct?
15 A. Yes.
16 Q. Okay. In both of your declarations, you used
17 the phrase "teach" -- "teaches away" or "teaching away,"
18 correct?
19 A. Yes.
20 Q. Okay. And what is your understanding of what it
21 means for a reference to teach away from a modification
22 or combination?
23 A. Well, I'm told that's the accepted term, but to
24 me it's basically he is saying that this is the way not
25 to do it.

1 Q. Do you know whether there's a legal standard
2 applied in determining whether a reference teaches away
3 from a modification or combination?
4 MR. DOUGLAS: Object to form.
5 THE DEPONENT: No, I don't know the definition
6 of the term legally. I'm not an attorney.
7 BY MR. FITZSIMMONS:
8 Q. And you don't provide a definition of that term
9 in either of your declarations, correct?
10 A. I don't believe I do. Yeah.
11 Q. So the language or phrase "teaches away," is
12 that something that was provided to you by counsel?
13 A. Yeah.
14 Q. From your understanding, if a reference
15 expresses a preference for one technique over another,
16 is that a teaching away from the less preferred option?
17 MR. DOUGLAS: Object to form.
18 THE DEPONENT: Well, pref -- I wouldn't use the
19 word "preference." I would say there is a comparison of
20 two approaches, and one is sort of -- what's the right
21 word? -- I think disparaged or, you know, don't do it
22 this way, you know.
23 BY MR. FITZSIMMONS:
24 Q. So is it your understanding then that a
25 preference for one way of doing something over another

1 does not provide a teaching away?
2 MR. DOUGLAS: Object to form. Asked and
3 answered.
4 THE DEPONENT: Well, let's see. I would -- I
5 view it as if you are, you know, comparing two
6 approaches, and one approach, you know, is definitely
7 identified as the preferred approach or the better
8 approach to give you a better result, that you are
9 saying, hey, don't do this if you can do this. That's
10 what it means to me.
11 BY MR. FITZSIMMONS:
12 Q. So from your understanding, if -- if a reference
13 describes advantages of a first technique over a second
14 technique, is that a teaching away from the second
15 technique?
16 A. Well, I would think it would be a little bit
17 stronger in that it, as I said, is described -- it's
18 saying, you know, don't -- don't do this if you can do
19 this. In other words, if you can do the preferred
20 approach, it's better, and there's problems with the
21 not-preferred approach. That's the way I view it.
22 Q. And in your second declaration, Exhibit 2018 --
23 A. Uh-huh.
24 Q. -- let's turn to paragraph 23.
25 A. Okay.

1 Q. In paragraph 23, you address the obviousness
2 rationale from ground 1 of the petition, which involves
3 the combination of Sato and Takamura, correct?
4 A. Yes.
5 Q. And you state that:
6 "I understand that Dr. VonSacken opines that a
7 POSITA would be motivated to combine the tape of
8 Takamura's Figures 8 and 9 with Sato's battery to
9 prevent lithium plating."
10 Correct?
11 A. Yes.
12 Q. Is it your understanding that the combination of
13 Sato and Takamura in ground 1 of the petition is
14 proposing to incorporate the tape in Takamura with
15 Sato's battery?
16 MR. DOUGLAS: Objection. Form.
17 Mischaracterizes.
18 THE DEPONENT: Well, it says -- as it says, it
19 is obvious to locate Sato's tape opposite to the
20 negative lead connection on Sato's negative lead. And
21 then it says "as taught by Takamura." Is that what
22 you're referring to?
23 BY MR. FITZSIMMONS:
24 Q. Where are you pointing to? Or where are you
25 referring to in your declaration?

1 A. I am reading out of paragraph 23.
2 Q. And what precisely were you reading here?
3 A. It's the, what, fourth sentence down in the
4 quotation. This is from Dr. VonSacken. It would have
5 been obvious to oppose it to locate Sato's insulating
6 tape, as taught by Takamura, opposite to the negative
7 lead connection on Sato's negative lead.
8 Q. Right. And so that's from a quote from Dr.
9 VonSacken's --
10 A. Right.
11 Q. -- declaration, correct?
12 A. That's right.
13 Q. And that quote is from his declaration
14 Exhibit 1003, paragraph 112, right?
15 A. Yeah.
16 Q. Okay. The first sentence of paragraph 23, you
17 state that:
18 "I understand that Dr. VonSacken opines that a
19 POSITA would be motivated to combine the tape of
20 Takamura's Figures 8 and 9 to Sato's battery to prevent
21 lithium plating."
22 Correct?
23 A. Yes.
24 Q. Okay. And so my question is: Is it your
25 understanding that the combination of Sato and Takamura

1 in ground 1 of the petition is proposing to incorporate
2 the tape of Takamura with Sato's battery?
3 A. Yes, I believe that's right. Yeah.
4 Q. Okay. And let's, then, turn to paragraph 89,
5 second declaration. Actually, if you go up, first, to
6 just paragraph 85. This is just to orient relating to
7 ground 7 from the petition.
8 A. Okay.
9 Q. Takamura '0539 and Kobayashi.
10 Do you see that?
11 A. Yes.
12 Q. And then paragraph 89 --
13 A. Uh-huh.
14 Q. -- regarding ground 7 and the combination of
15 Takamura '0539 and Kobayashi, is what you are discussing
16 in this section, correct?
17 A. Yeah.
18 Q. Okay. And you state that:
19 "Even if combined, the resulting combination of
20 Takamura and '0539 would not result in placing the
21 second insulating glue layer at the claim location."
22 Correct?
23 A. Where are you at? I'm sorry.
24 Q. Paragraph 89.
25 A. 80 -- oh, 89, yeah.

1 Q. Uh-huh.
2 A. Yes, that's correct.
3 Q. And then in paragraph 90, which spans the
4 current page onto the next page, I believe --
5 A. Uh-huh.
6 Q. -- you state that:
7 "A POSITA would understand" -- and this is
8 actually on the following page.
9 A. Yeah.
10 Q. Sorry. So you see at the bottom, it's actually
11 page 47 of 52.
12 A. You -- 47? Oh, you're looking down at the --
13 Q. Yeah, at the bottom --
14 A. Yep.
15 Q. -- right-hand corner, it says page 47 of 52, but
16 this is still paragraph 90.
17 A. Okay.
18 Q. So you state:
19 "A POSITA would understand that adding tape in
20 the middle of '0539 would create additional extra space
21 at the locations of '0539."
22 Correct?
23 A. Yes.
24 Q. Is it your understanding that ground 7 of the
25 petition proposes adding tape in the middle of '0539's

1 battery?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: I believe that's correct. Yeah.
4 BY MR. FITZSIMMONS:
5 Q. In paragraph, now, 59, still in your second
6 declaration --
7 A. Uh-huh. Yes.
8 Q. -- you quote here a portion of Dr. VonSacken's
9 declaration.
10 A. Uh-huh.
11 Q. Paragraph 170 from Exhibit 1003. That's Dr.
12 VonSacken's declaration.
13 A. Uh-huh.
14 Q. And you are quoting a portion -- and let's see.
15 First, you state from Dr. VonSacken's declaration that
16 there are three predictable solutions for connecting a
17 lead to an electrode plate. And then:
18 "One, making the lead" -- or excuse me.
19 "One, making the thickness of the lead greater
20 than the depth of the recess; two, making the thickness
21 of the lead equal to the depth of the recess; and 3,
22 making the thickness of the lead less than the depth of
23 the recess."
24 Correct?
25 A. Yeah, that's a direct quote from him.

1 Q. Okay. And do you agree that these are the only
2 three possibilities for the thicknesses when connecting
3 a lead to an electrode plate at a recess?
4 A. Yes, from a thickness perspective, these are the
5 only things physically possible.
6 Q. Uh-huh. And in paragraph 59, you provide
7 another quote from paragraph 170 of Dr. VonSacken's
8 declaration that:
9 "A per" -- "A POSA would have understood that a
10 lead as thick or thicker than the depth of the recess
11 could produce an undesirable bulge in the battery cell
12 winding, which would not be an efficient use of space
13 and would reduce cell capacity."
14 Do you see that?
15 A. Yes.
16 Q. And do you agree with that statement?
17 A. With qualifications, in terms of it doesn't
18 specify any numbers. If you make leads substantially
19 thicker, you will have a bulge.
20 Q. In your experience, is lead thickness more
21 typically less than the depth of the recess or equal to
22 the depth of the recess?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: Less than or equal to. You know,
25 it's my experience, typically, it depends on what kind

1 of lead you buy. In other words, leads aren't custom
2 manufactured to tight tolerances, and you have limited
3 control over the thickness of the active layer. So I
4 can't give you a definitive answer, I guess is what I'm
5 saying.
6 BY MR. FITZSIMMONS:
7 Q. Is -- in your experience, is there a preference
8 to whether the lead thickness is less than the depth of
9 the recess or equal to the depth of the recess?
10 MR. DOUGLAS: Object to form.
11 THE DEPONENT: So you're saying is it -- equal
12 to or less than, is what you're saying?
13 BY MR. FITZSIMMONS:
14 Q. Correct.
15 A. As I said, I think it -- you don't have absolute
16 control over your coating thicknesses, so that means you
17 can't always deterministically tell how much difference
18 you're going to have between the height. And that's
19 also driven by what's the tolerancing of your tab
20 thicknesses, because they are not perfectly toleranced.
21 So, you know, it wouldn't be unusual to want to
22 have a tab that's approximately the same thickness, you
23 know, as the active coating. But it also depends on how
24 much current you want to put through that tab. So if
25 you wanted to put more current through it, you might

1 have a thicker tab. So it's just -- it depends on the
2 cell design, I guess I would say.
3 Q. Would it -- is it preferable, though, to have
4 the thickness of the active layer greater than the
5 thickness of the lead?
6 MR. DOUGLAS: Object to form. Asked and
7 answered.
8 THE DEPONENT: It -- no, not necessarily,
9 because, you know, if you're applying tape over the
10 negative tab, if it's the same height as the active, it
11 doesn't really matter. You're gonna have the thickness
12 of the tape no matter what. It might be preferable in
13 the sense that if it's level with the active and you
14 apply press -- or pressure and, say -- which there can
15 be a lot of pressure in a lithium-ion cell.
16 If it's a flat surface, you will have less
17 distortion. You know, the edges of the recess are, I
18 would say, more delicate than -- you know, because
19 you -- you've got a pressure point. If you apply
20 pressure over an edge, you're applying more pressure to
21 the edge, and so it -- it -- you know, from that
22 perspective, if you wanted to have a flat, level
23 surface, it would distribute the pressure better. And
24 you could do that by having the lead the same thickness.
25 ///

1 BY MR. FITZSIMMONS:
2 Q. And so then the height or the thickness of the
3 tab isn't a critical dimension --
4 A. Well, no, I didn't say --
5 Q. -- correct?
6 A. -- that. It -- it's not a dimension you have
7 perfect control over. So what I was saying is if you
8 have -- if you have it the same thickness as the active,
9 you have the advantage of it is thicker so you have
10 better electrical conductivity, thermal conductivity,
11 and you may perform better in crush tests.
12 If you make it thinner, you know, you have less
13 weight. So it's just tradeoffs.
14 Q. Okay. So...
15 THE DEPONENT: What time is lunch?
16 MR. FITZSIMMONS: So it's currently 12:30.
17 THE DEPONENT: Yeah, that's good.
18 MR. FITZSIMMONS: Would you like to take a break
19 for lunch?
20 THE DEPONENT: Let's have lunch, yeah. Is that
21 all right?
22 MR. FITZSIMMONS: That's fine by me. This is
23 just as fine of a stopping point as anywhere else. So
24 we can go off the record.
25 (A recess transpires.)

1 MR. FITZSIMMONS: Back on the record.
2 BY MR. FITZSIMMONS:
3 Q. Welcome back from lunch, Mr. Kaschmitter.
4 During the lunch break, or any other breaks earlier this
5 morning, did you have any conversations with counsel
6 about the testimony you have given today or the
7 testimony that you will be giving today?
8 A. No.
9 Q. Okay. I am going to introduce now another
10 document. This is the Sato reference. It is
11 Exhibit 1005.
12 (Exhibit No. 1005 marked for identification.)
13 MR. FITZSIMMONS: And it is publication No. U.S.
14 20110111276.
15 BY MR. FITZSIMMONS:
16 Q. Do you recognize this document?
17 A. Yes.
18 Q. Okay. And you have previously reviewed this
19 Sato reference, correct?
20 A. Yeah.
21 Q. Okay. Let's go to paragraph 51 of Sato, please.
22 And paragraph 51 of Sato, it provides examples of
23 materials for the positive electrode active material.
24 Is that correct?
25 A. Yes.

1 Q. And paragraph 51 recites that the positive
2 active materials include at least one of Na, Mg, Sc, Y,
3 Mn, Fe, Co, Ni, Cu, Zn, Al, Cr, Pb, Sb, and B, correct?
4 A. Yeah. And --
5 Q. Okay. And those are all elements, correct?
6 A. And Me, too.
7 Q. I'm sorry if I missed one.
8 And the phrase "at least one" in paragraph 51
9 indicates that the active material can include one or
10 more of those listed elements, correct?
11 MR. DOUGLAS: Object to form.
12 THE DEPONENT: Let me just -- I haven't read
13 this one. Okay.
14 And so it's listing those. And Me is a metal
15 element, yeah. Oh, so it's a generic term, okay. One
16 of those (reads to self.)
17 Okay. So you were --
18 Q. So my question again is: The phrase "at least
19 one" in paragraph 51 indicates that the active material
20 can include one or more of the listed elements, correct?
21 MR. DOUGLAS: Object to form.
22 THE DEPONENT: Iron, manganese and cobalt and
23 nickel, yeah.
24 BY MR. FITZSIMMONS:
25 Q. And that's for Me, correct?

1 A. Yes.
2 Q. Okay. So before that, sorry, it says "where M
3 is at least one of," and then it lists --
4 A. Yeah, that whole --
5 Q. -- a number of those, correct? Okay.
6 So M there can be at least one of those listed
7 elements, correct?
8 A. Yeah, yes.
9 Q. Okay. And so the active material can include
10 one or more of those listed elements, correct?
11 MR. DOUGLAS: Object to form.
12 THE DEPONENT: Yes. It says "at least one," so,
13 yeah.
14 BY MR. FITZSIMMONS:
15 Q. Okay. And similarly with respect to Me, which
16 you noted, it lists examples that -- of a metal element
17 containing at least one selected from the group of Fe,
18 Mn, Co, and Ni, correct?
19 A. Yes.
20 Q. And the phrase "at least one" means that the
21 active material in Me there can include one or more of
22 those listed elements, correct?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: M... so how did you say that
25 again? I'm sorry.

1 BY MR. FITZSIMMONS:
2 Q. I said in the phrase "at least one" means that
3 the active material in Me can include one or more of
4 those listed elements --
5 A. Yeah.
6 Q. -- correct?
7 MR. DOUGLAS: Same objection.
8 THE DEPONENT: Yep. Okay.
9 BY MR. FITZSIMMONS:
10 Q. And it can include all four elements, correct?
11 MR. DOUGLAS: Object to form.
12 THE DEPONENT: Yes, it could.
13 BY MR. FITZSIMMONS:
14 Q. Okay. In paragraph 67, discusses silicon
15 compounds, right?
16 A. Yeah.
17 Q. Okay. And the second sentence there starts with
18 "Examples of the silicon compound."
19 Do you see that?
20 A. Yes.
21 Q. Okay. And towards the end of the sentence, it
22 says:
23 "A silicon alloy and a silicon solid solution
24 obtained by substituting part of Si with at least one of
25 the elements selected from the group consisting of," and

1 then it lists a number of elements.
2 Do you see that?
3 A. Yes.
4 Q. Okay. And here again, the phrase "at least one"
5 means that part of the silicon can be substituted for
6 one or more of those listed elements, right?
7 A. Yes.
8 MR. DOUGLAS: Object to form.
9 BY MR. FITZSIMMONS:
10 Q. And part of the silicon can be substituted by
11 various combinations of the listed elements as well,
12 correct?
13 A. Yes. It says "at least one" of, so...
14 Q. Okay. Paragraph 82, please.
15 A. 82.
16 Q. Of Sato.
17 A. 82. Okay.
18 Q. Okay. Paragraph --
19 A. Okay.
20 Q. I'm sorry. Paragraph 82 describes potential
21 additives for the nonaqueous electrolyte, correct?
22 A. Yes.
23 Q. Okay. And I believe it's the second-to-last
24 sentence, it starts with "Among the materials listed
25 above."

1 Do you see that?
2 A. Yes.
3 Q. Okay. And then it continues, and it says -- so
4 it says:
5 "Among" -- excuse me. Let me restart that.
6 It says:
7 "Among the materials listed above, at least one
8 selected from the group consisting of vinylene
9 carbonate" --
10 A. Uh-huh.
11 Q. -- "vinyl ethylene carbonate" --
12 A. Uh-huh.
13 Q. -- "and divinyl ethylene carbonate" --
14 A. Yep.
15 Q. -- "is preferably contained."
16 A. Yep.
17 Q. Do you see that?
18 A. Yep.
19 Q. And here, the phrase "at least one" indicates
20 that the nonaqueous electrolytes can include one or more
21 of the listed additives, correct?
22 A. Where does -- where does it say -- I'm sorry,
23 just reading the whole thing. Oh, your question is can
24 it include one or more of the -- yeah, okay. Yeah,
25 okay. Yes.

1 Q. And so the nonaqueous electrolytes can include
2 one or more of those listed additives. Right?
3 MR. DOUGLAS: Object to form.
4 THE DEPONENT: The carbonates, yeah, okay.
5 BY MR. FITZSIMMONS:
6 Q. And there's only three additives listed there,
7 correct?
8 A. Yeah. It says "Among the materials listed
9 above." It's got VC, VEC, and DEC --
10 THE REPORTER: VC -- I'm sorry?
11 THE DEPONENT: Oh, it's vinylene carbonate. We
12 call it --
13 THE REPORTER: No, no. I'm just asking for the
14 letters.
15 THE DEPONENT: It's VC.
16 THE REPORTER: And the rest?
17 THE DEPONENT: Victor Car- -- VC.
18 So, yeah, it's saying, if I'm reading the right
19 sentence that you are referring to, it says among the
20 materials listed above, it -- they are preferably
21 contained, yeah, that's true.
22 BY MR. FITZSIMMONS:
23 Q. Okay. So there's three additives listed there?
24 A. Yeah, yeah.
25 Q. And the nonaqueous -- the nonaqueous electrolyte

1 could include all three of those additives, correct?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: At least one of, yes. So yes.
4 BY MR. FITZSIMMONS:
5 Q. So yes, it could include all three?
6 A. Yeah.
7 Q. Okay. Let's look at Figure 3 of Sato.
8 A. Okay.
9 Q. I will also refer you to just paragraph 100 --
10 after 149, there's a description "Reference Characters"
11 that lists off some of the reference numbers that I will
12 be discussing in --
13 A. Okay.
14 Q. -- Figure 3, just for your --
15 A. Okay.
16 Q. -- reference here. Okay. And so --
17 A. You said paragraph 149?
18 Q. Yeah, it might be starting with 150. There's a
19 heading there that says --
20 A. Yeah, there's a list. Okay.
21 Q. Of reference numbers. All right?
22 A. All right.
23 Q. So turning to Figure 3.
24 A. Uh-huh.
25 Q. Figure 3 shows an active material layer

1 indicated by reference No. 9, correct?
2 A. Yeah, they call it the mixture layer, but...
3 THE REPORTER: The mixture layer?
4 THE DEPONENT: Mixture layer, yeah.
5 BY MR. FITZSIMMONS:
6 Q. Okay. And so the mixture layer 9 would also be
7 known as the -- as an active material layer, correct?
8 A. I -- I believe that's true. I'd have to study
9 it, but I think that's what they're saying.
10 Q. Okay. And that mixture layer or active material
11 layer is applied on a current collector that's indicated
12 by reference No. 10, correct?
13 A. Yes.
14 Q. And Figure 3 shows that there's an exposed
15 portion indicated by reference No. 12 on the current
16 collector 10, correct?
17 A. I'm just looking at the slot in the list of
18 definitions. I don't -- at least I don't see it.
19 Q. Paragraph 39 might also be helpful for some of
20 the reference numbers.
21 A. Okay.
22 Q. And so my question again, then, is: Figure 3
23 shows an exposed portion indicated by reference No. 12,
24 correct?
25 A. Yeah, it's -- yeah, it says an exposed portion

1 12 of -- but, you know, the arrows kind of point in a
2 funny direction, but I think they are referring to that
3 exposed portion.
4 Q. Okay. The exposed portion 12 is free of active
5 material layer at that location, correct?
6 A. Yes, I -- you know, it's -- yeah, I'm -- I'm
7 sure. I'm sure it is, but --
8 Q. And in Figure 3, it shows an extension lead
9 indicated by reference No. 11, correct?
10 A. Yes.
11 Q. And that lead 11, it's disposed on the upper
12 surface of the exposed portion of the current collector,
13 right?
14 A. It's on the upper surface of the current
15 collector, yeah.
16 Q. Would you agree that lead is disposed in a
17 recess?
18 A. Well, it doesn't label the upper recess, but by
19 extension, yeah, it would look like it was in a recess.
20 Q. Figure 3 indicates the width of the area
21 opposite at recess, it's indicated by the symbol gamma,
22 correct?
23 A. Yes.
24 Q. Okay. And if we look at Figure 4 of Sato.
25 A. Uh-huh.

1 Q. Figure 4 depicts another cross-sectional view of
2 an electroplate indicated by No. 22, correct?
3 A. 22, I think, is the -- it looks like the
4 electrode in -- overall. Did I get the right -- 9 is
5 the active coating, if I --
6 Q. So in paragraph 40 --
7 A. Uh-huh.
8 Q. -- it refers to 22. If you look at the first
9 line there, it says "the electrode plate 22 of this
10 environment illustrated in Figure 4?
11 A. Yep.
12 Q. And so --
13 A. That's kind of what I was saying. It's -- it's
14 an electrode overall.
15 Q. Okay.
16 A. Yeah.
17 Q. And so Figure 4, the reference No. 22 refers to
18 the electrode shown in Figure 4, correct?
19 A. Or they call it electrode plate, I think.
20 Q. Right, they call an electrode plate 22.
21 A. Yeah.
22 Q. And so just to be clear there, Figure 4 shows an
23 electrode plate indicated by reference No. 22?
24 A. Uh-huh.
25 Q. Right?

1 A. Yep.
2 Q. The same electrode structure elements that were
3 shown and labeled in Figure 3 are also included in
4 Figure 4, correct?
5 MR. DOUGLAS: Object to form.
6 THE DEPONENT: It -- well, the only thing is it
7 calls out 13 instead of 12, and then it looks -- shows
8 what looks like some tolerancing in the beta. But the
9 9, 10, and 11 are -- are the same thing.
10 BY MR. FITZSIMMONS:
11 Q. So there's a current collector 10, correct?
12 A. Yeah.
13 Q. There is in Figure 4 an active material layer or
14 what they also refer to as mixture layer 9, correct?
15 A. Yeah.
16 Q. There is a lead 11 in Figure 4, correct?
17 A. Yep.
18 Q. And the lead is disposed in a recess in the
19 active material layer, correct?
20 A. Yes.
21 Q. Okay. The same is true for Figure 5, in terms
22 of those components being shown, correct?
23 A. Yes, it -- but it does show 14, which -- the
24 same thing, it says an exposed portion.
25 Q. Okay.

1 A. But otherwise, you know, the same, except 23 is
2 a -- is the electrode assembly.
3 Q. In Figure 4, gamma, that width of the lower
4 exposed portion of the electrode plate is narrower than
5 in Figure 3, correct?
6 MR. DOUGLAS: Object to form.
7 THE DEPONENT: Well, there's no dimensions here,
8 so I can't say --
9 BY MR. FITZSIMMONS:
10 Q. Uh-huh.
11 A. Do you know where it defines it in the write-up?
12 Because it's not dimensioned here. I can't find...
13 THE REPORTER: I'm sorry?
14 THE DEPONENT: It's not dimensioned. I mean, it
15 defines it, but there's no measurements I can see.
16 BY MR. FITZSIMMONS:
17 Q. Paragraph 40 describes a Figure 4 there. Refer
18 to that one.
19 A. Yeah, I just didn't see any measurements.
20 Q. Uh-huh. Okay. So what it -- paragraph 40,
21 right at the top, it says:
22 "The width in the longitudinal direction of the
23 current collector of a portion where the mixture layer
24 is not provided on the surface" --
25 A. Uh-huh.

1 Q. -- "i.e., the first surface of the current
2 collector 10 connected to the extension 11 is larger
3 than a width of a portion where the mixture layer 9 is
4 not provided on the other surface."
5 That's the second surface of the current
6 collector.
7 A. How far -- how far down is that?
8 Q. I'm sorry?
9 A. How far down is that?
10 Q. That was the first sentence in paragraph 40.
11 A. Oh, okay. Larger than the width. Okay. So
12 it's larger than the width. I agree.
13 Q. You would agree that the progression there in
14 Figures 3, 4, and 5 of Sato is to show the sort of
15 decreasing width of the bottom portion 12, 13, and 14,
16 correct?
17 MR. DOUGLAS: Object to form.
18 THE DEPONENT: Well, there's no dimension, so
19 without that -- but if you assume the scale is the same
20 between the three, you would assume 14 is narrower than
21 13.
22 BY MR. FITZSIMMONS:
23 Q. And in paragraphs 40 and 41 of Sato, that's
24 where it describes making the width of gamma narrower
25 than the recess above it where the lead is disposed,

1 correct?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: Can you point me to the line that
4 you're -- it would save time.
5 BY MR. FITZSIMMONS:
6 Q. Uh-huh. So paragraph 40, the first sentence
7 there.
8 A. Yeah, we -- I thought we talked about it.
9 Q. Uh-huh.
10 A. The width in the longitudinal direct --
11 direction of a portion where the layer is not provided,
12 the void, the recess is larger than the width of a
13 portion where the mixture layer is not provided on the
14 other surface; the second surface.
15 Okay. So your question? Just restate it,
16 because I --
17 Q. Uh-huh. And so in paragraphs 40 and 41 there of
18 Sato, it's describing making that width of gamma --
19 A. Uh-huh.
20 Q. -- narrower than the recess above it where the
21 lead is disposed, correct?
22 A. Yes.
23 MR. DOUGLAS: Object to form.
24 BY MR. FITZSIMMONS:
25 Q. Let's go to Claim 1 of Sato, which is on the

1 last page.
2 A. I don't handle paper much anymore.
3 Q. And so the last page there --
4 A. Oh, there it is. It's under -- yeah.
5 Q. -- Claim 1 is under paragraph 169.
6 A. Yeah, I have it. Thank you.
7 Q. And Claim 1 is directed to an electrode plate,
8 correct?
9 A. Yes.
10 Q. And Claim 1 recites a current collector,
11 correct?
12 A. Yes.
13 Q. Claim 1 recites a mixture layer provided on each
14 surface of the current collector, correct?
15 A. Yes.
16 Q. And Claim 1 recites an extension lead is
17 connected to the first surface of the exposed portion,
18 correct?
19 A. Yes, that's -- just a second. The extension...
20 (reads to self.) What do they call extension lead? I'm
21 just trying to find the correlation be -- what the
22 definition of "extension lead" is in the picture. It
23 just says lead is 11. It -- I -- if I assume that's an
24 extension lead, then that would be correct.
25 Q. Just by way of example, if you go to paragraph

1 39 --
2 A. Uh-huh.
3 Q. -- it also refer -- it refers to No. 11 that --
4 that you mentioned as extension lead, as well. So the
5 lead or extension lead.
6 A. Okay.
7 Q. Do you see that?
8 A. Yeah.
9 Q. Okay. And so Figure 1 recites an extension lead
10 is connected to the first surface of the exposed
11 portion, correct?
12 A. It -- it's -- yeah, it says:
13 "An extension lead connected to the current
14 collector," so...
15 Q. And then it says:
16 "The current collector has an exposed portion
17 having first and second surfaces."
18 Right?
19 A. Yes.
20 Q. And do you see, then, two more phrases down
21 where it says:
22 "The extension lead is connected to the first
23 surface of the exposed portion"?
24 A. You're looking at the next sentence after that
25 one? "The exposed portion extends perpendicular to a

1 longitudinal direction in the current collector"?
2 Q. And then the next.
3 A. "The extension lead is connected to" -- okay.
4 Q. So Claim 1 recites an extension lead is
5 connected to the first surface --
6 A. Uh-huh.
7 Q. -- of the exposed portion, right?
8 A. Yeah.
9 Q. Claim 1 recites that the current collector has
10 an ex -- has an exposed portion having first and second
11 surfaces where the mixture layer is not provided,
12 correct?
13 MR. DOUGLAS: Object to form.
14 THE DEPONENT: Are you interpreting the last
15 sentence?
16 MR. FITZSIMMONS: No, I'm sorry. It's really --
17 it's going back up to the top of --
18 THE DEPONENT: Okay.
19 BY MR. FITZSIMMONS:
20 Q. -- that column there.
21 A. Oh, that column, okay.
22 Q. So Claim 1 recites that the current collector
23 has an exposed portion having first and second
24 surfaces --
25 A. Okay.

1 Q. -- where the mixture layer is not provided,
2 correct?
3 A. Yeah.
4 Q. Claim 1 recites that the exposed portion extends
5 perpendicular to the longitudinal direction of the
6 current collector, right?
7 A. Yes.
8 Q. And Claim 1 recites that the lead is connected
9 to the first surface of the exposed portion, correct?
10 A. Yes.
11 Q. Claim 1 also recites that the width of the first
12 surface of the exposed portion is larger than the width
13 of the second surface of the exposed portion, correct?
14 MR. DOUGLAS: Objection. Mischaracterizes.
15 THE DEPONENT: What it says is the -- is
16 basically the recess or the mix -- where there's no
17 mixture layer is larger than a portion of the second
18 surface on which the mixture layer is not provided. So
19 they are both exposed surfaces, and it's saying the
20 first one is wider.
21 BY MR. FITZSIMMONS:
22 Q. Okay. And so Claim 1 recites that a portion of
23 the first surface on which the mixture layer is not
24 provided has a width larger than that of a portion of
25 the second surface on which the mixture layer is not

1 provided, correct?
2 A. Yes.
3 Q. And so Claim 1 recites an electrode plate having
4 the structure that we were discussing --
5 A. Uh-huh.
6 Q. -- earlier that's depicted in Figures 4 and 5 of
7 Sato, correct?
8 MR. DOUGLAS: Object to form.
9 THE DEPONENT: Ye -- yes, it doesn't
10 specifically use the numbering, but if we use the table
11 in the description, then I would agree with you.
12 BY MR. FITZSIMMONS:
13 Q. Uh-huh. And does Claim 1 specify whether the
14 claimed electrode plate is the positive electrode plate
15 or the negative electrode plate?
16 MR. DOUGLAS: Object to form.
17 THE DEPONENT: It doesn't differentiate.
18 BY MR. FITZSIMMONS:
19 Q. Okay. So Claim 1 could be for, then, either the
20 positive electrode plate or the negative electrode
21 plate. Is that correct?
22 A. Yeah.
23 MR. DOUGLAS: Object to form.
24 BY MR. FITZSIMMONS:
25 Q. Okay. Please look down that column further at

1 Claim 6.
2 Do you see that?
3 A. Yes.
4 Q. Claim 6 is directed to a second -- a non --
5 excuse me.
6 A. Aqueous.
7 Q. -- a nonaqueous electrolyte secondary battery,
8 correct?
9 A. Yes.
10 Q. And Claim 6 recites that the battery has an
11 electrode case that encloses a nonaqueous electrolyte.
12 Is that right?
13 A. Yes.
14 Q. And Claim 6 recites that the battery includes a
15 positive electrode plate and a negative electrode plate,
16 correct?
17 A. Yes.
18 Q. Okay. And Claim 6 recites that at least one of
19 the positive electrode plate and the negative electrode
20 plate is the electrode plate of Claim 1, correct?
21 A. Yes.
22 Q. Okay. The term "at least one" as recited in
23 Claim 6 of Sato means that one or both of the positive
24 and elec -- positive and negative electrodes can have
25 the electrode plate structure recited in Claim 1,

1 correct?
2 A. Yes.
3 MR. DOUGLAS: Object to form. Mischaracterizes.
4 THE DEPONENT: Yes.
5 BY MR. FITZSIMMONS:
6 Q. Okay. And if we now turn to paragraph 10 of
7 Sato.
8 A. Okay.
9 Q. All right. Paragraph 10 of Sato is under a
10 heading that says "Solution to the Problem."
11 Do you see that?
12 A. Yes.
13 Q. And paragraphs 10 through 14 of Sato are a
14 section of "Solution to the Problem," correct?
15 A. Yes.
16 Q. And paragraph 10 describes an electrode plate
17 for a secondary battery, right?
18 A. Yes.
19 Q. Okay. And paragraph 10 describes that the
20 current collector has an exposed portion with a first
21 surface, a second surface, where there's no active
22 material. Is that correct?
23 MR. DOUGLAS: Object to form.
24 THE DEPONENT: So the first part. Mix -- so it
25 describes the current collector. And then he says the

1 mixture layer and -- provided on each surface. And then
2 he says:
3 "An extension lead connected to the current
4 collector, wherein the current collector has an exposed
5 portion."
6 Yeah, so he's put in the lead in the exposed
7 portion.
8 BY MR. FITZSIMMONS:
9 Q. Uh-huh. And so that's the -- that's the part I
10 was referring to. So that's -- Claim 10 describes the
11 current collector as having an exposed portion with
12 first and second surfaces --
13 A. Okay.
14 Q. -- where there is no active material, right?
15 A. I think you said Claim 10, but you meant
16 paragraph?
17 Q. I'm sorry. If I said Claim 10, I meant
18 paragraph 10.
19 A. Okay. Yes.
20 Q. Paragraph 10 goes on to describe that a lead is
21 connected to the first surface of the current collector,
22 right?
23 A. Yeah.
24 Q. Okay. And paragraph 10 also describes that the
25 width of the first surface of the exposed portion is

1 larger than the width of the second surface of the
2 exposed portion, correct?
3 A. Yeah, so you're looking at the last part, and
4 the portion of the first surface has a width larger than
5 the portion of the second surface. Yes.
6 Q. Okay. And the exposed portion of the current
7 collector where the lead is connected --
8 A. Uh-huh.
9 Q. -- that's the recess, correct?
10 MR. DOUGLAS: Object to form.
11 THE DEPONENT: Yes.
12 BY MR. FITZSIMMONS:
13 Q. And paragraph 10 doesn't specify whether this
14 description is for the positive electrode or the
15 negative electrode, right?
16 MR. DOUGLAS: Object to form.
17 THE DEPONENT: Yes.
18 BY MR. FITZSIMMONS:
19 Q. Let's just look down now at paragraph 13.
20 A. Uh-huh.
21 Q. Okay. Paragraph 13 describes a nonaqueous
22 electrolyte secondary battery, right?
23 A. Yes.
24 Q. And it describes that the battery has an
25 electrode case that encloses a nonaqueous electrolyte,

1 right?
2 A. Yes.
3 Q. And paragraph 13 describes that the battery
4 includes a positive electrode plate and a negative
5 electrode plate, correct?
6 A. Yes.
7 Q. And paragraph 13 describes at least one of the
8 positive electrode plate and the negative electrode
9 plate is the electrode plate described above, correct?
10 A. Yes.
11 Q. Okay. And when it says "described above," is it
12 your understanding that it means above in paragraph 10?
13 A. That's how I would interpret it, yes.
14 Q. And the phrase "at least one" as used in
15 paragraph 13 means that one or both of the positive and
16 negative electrodes can have the electrode plate
17 structure described above in paragraph 10, correct?
18 MR. DOUGLAS: Object to form. Mischaracterizes.
19 THE DEPONENT: Yes.
20 BY MR. FITZSIMMONS:
21 Q. Please turn to paragraph 36 of Sato. It's at
22 the bottom of the page. It starts down in the
23 right-hand column.
24 Do you see that?
25 A. Yes.

1 Q. The first sentence, which goes onto the next
2 page, it says:
3 "In a portion of at least one of the positive
4 electrode plate 4 and the negative electrode plate 5 to
5 which lead is connected, the mixture layer is not formed
6 on one surface of the current collector connected to
7 lead, i.e., a first surface, and on the other surface,
8 i.e., a second surface of the current collector."
9 Right?
10 A. Yes, it -- just verbatim as you've read it,
11 yeah.
12 Q. And the phrase "at least one" as used in
13 paragraph 36 means that one or both of the positive and
14 negative electrode plates have a portion where the
15 mixture layer is not formed on one surface of the
16 current collector connected to the lead, i.e., the first
17 surface, and on the other surface, i.e., a second
18 surface, correct?
19 A. Yes.
20 Q. Paragraph 36 says that:
21 "This portion which is not provided with the
22 mixture layer will be hereinafter referred to as an
23 exposed portion."
24 Do you see that?
25 A. Yes.

1 Q. Okay. And the exposed portion is at the bottom
2 of what paragraph 36 refers to as the trench, correct?
3 A. Trench. Where was -- I'm sorry.
4 Q. About halfway down the paragraph --
5 A. Oh, yes.
6 Q. -- there.
7 A. The exposed portion of the positive (reads to
8 self.) Oh, okay. Or the negative is located on a
9 trench. (Reads to self.) It's kind of strange because
10 it's saying the exposed portion is located on a trench,
11 which would seem to imply that there's some kind of
12 trench underneath the exposed portion.
13 Q. Is it your understanding that the term "trench"
14 is another term for recess?
15 MR. DOUGLAS: Object to form.
16 THE DEPONENT: It -- it's not commonly used that
17 way. So do they define "trench" in here?
18 BY MR. FITZSIMMONS:
19 Q. It says:
20 "Specifically, the bottom of this trench is the
21 exposed portion."
22 Do you see that?
23 A. Yeah, I looked at that.
24 Q. Uh-huh.
25 A. What's strange is the language says the exposed

1 portion is located on a trench, which would -- like I
2 said, it would imply that there's a trench under the
3 exposed portion, if it's on top of it. So, I'm sorry,
4 that's where the confusion --
5 Q. And if it said located in a trench --
6 A. Well, it is --
7 Q. -- the --
8 A. I think the --
9 Q. -- the positive electrode plate, would that make
10 more sense to you?
11 A. Well, I think it's -- if it said it's -- it is a
12 trench. I don't know why they are switching
13 terminology, I guess, you know.
14 Q. Yeah.
15 A. Because he already defined what "exposed
16 portion" is, and now he's calling it a trench. And so
17 that's what's confusing to me.
18 Q. The exposed portion is what you would understand
19 as being the recess, correct?
20 A. Yeah, he previously defined that.
21 Q. Okay. Please turn to paragraph 94, of Sato
22 still.
23 A. Okay.
24 Q. Again, it's at the bottom of the right-hand
25 column. It will continue onto the top of the next page.

1 I'll give you a minute to find 94.
2 A. Uh-huh. I have it.
3 Q. Okay.
4 A. Yeah, I didn't know what you're referring to.
5 Q. Oh, sorry. Paragraph 94 describes the
6 attachment position of where Sato's lead can be located
7 relative to the electrode, correct?
8 A. Yes.
9 Q. Paragraph 94 states:
10 "The position of attachment of the lead in the
11 present disclosure is not specifically limited."
12 Correct?
13 A. So what it's saying, along the length of the
14 electrode, *.0, M.1, it says the lead attachment is
15 preferably located in the one-quarter to three-quarter
16 range.
17 Q. My first question was the -- do you see there
18 where it says:
19 "The position of attachment lead" --
20 A. Yeah, "is not specifically limited."
21 Q. -- "is not specifically limited"?
22 A. Yeah.
23 Q. Do you see that?
24 What does it mean to you when paragraph 64 says
25 the position of the attachment lead in the present

1 disclosure is not specifically limited?
2 MR. DOUGLAS: Object to form.
3 THE DEPONENT: It means they haven't specified a
4 limitation on the position of the attachment of the
5 lead.
6 BY MR. FITZSIMMONS:
7 Q. Okay. And as you noted, paragraph 94 also
8 states:
9 "The lead attachment position is preferably
10 located in the range from one-quarter to three-quarters
11 of the electrode length."
12 Right?
13 A. Yes.
14 Q. So Sato says this is the preferred location for
15 the lead, between a quarter and three-quarters, right?
16 A. Well, the way he puts it -- yeah, he says this
17 lead attachment position is preferably located in the
18 range, yeah.
19 Q. And paragraph 94 says that with that -- this --
20 with the structure, the internal volume can be
21 effectively utilized and sufficient current collection
22 can be achieved, right?
23 A. Yes.
24 Q. Is it your understanding that these are benefits
25 Sato is describing to locating the lead between

one-quarter and three-quarters along the length of the electrode?

MR. DOUGLAS: Object to form.

THE DEPONENT: What -- yes, what he's saying is you can better utilize the internal volume and get optimized current collection. So those are benefits that he's describing.

BY MR. FITZSIMMONS:

Q. Okay. On the next page, but it's still paragraph 94 --

A. Uh-huh.

Q. -- Sato says:

"It is sufficient that at least one of the positive electrode and the negative electrode satisfies the above conditions for the lead attachment position."

Correct?

A. Yes.

Q. And "the above conditions for the lead attachment position" refers to being located between a quarter and three-quarters along the length of the electrode, correct?

A. That's right.

Q. Okay. And the phrase "at least one" as used in paragraph 94 means that one or both of the positive and negative electrodes has a lead attachment position

1 located between a quarter and three-quarters along the
2 length of the electrode, right?
3 MR. DOUGLAS: Object to form. Mischaracterizes.
4 THE DEPONENT: Yes, at least one of the
5 electrodes satisfies that condition.
6 BY MR. FITZSIMMONS:
7 Q. Uh-huh. And so that means one of them satisfies
8 that condition or both of them satisfy that condition,
9 correct?
10 MR. DOUGLAS: Object to form. Mischaracterizes.
11 THE DEPONENT: That's right.
12 BY MR. FITZSIMMONS:
13 Q. Okay. Let's turn to --
14 A. Well, just to finish that thought, the next
15 sentence he says -- and I think it's kind of important
16 to note --
17 Q. Uh-huh.
18 A. -- is you don't want to have the leads on top of
19 each other.
20 Q. Uh-huh.
21 A. So that he's limiting it to having some
22 separation between them so -- to prevent shorting
23 between the leads.
24 Q. Okay.
25 A. So as he says, the negative electrode lead is

1 preferably located near the outermost portion of the
2 negative electrode. So anyway, that's --
3 Q. And so it uses the term "preferably located," so
4 that's not a requirement, though, correct?
5 MR. DOUGLAS: Object to form.
6 THE DEPONENT: Well, "preferable" means, yeah,
7 he -- "preferable" means that it's preferred, it's more
8 desirable, I guess.
9 BY MR. FITZSIMMONS:
10 Q. But "preferably" also means it's not required,
11 correct?
12 A. He --
13 MR. DOUGLAS: Object to form. Asked and
14 answered.
15 THE DEPONENT: So he -- he is not stipulating
16 you do it that way.
17 BY MR. FITZSIMMONS:
18 Q. And so if he's not stipulating you do it that
19 way, it's not required, correct?
20 MR. DOUGLAS: Object to form. Asked and
21 answered.
22 THE DEPONENT: Well, the way you phrase it, to
23 me, if you say "not required," he would be saying, hey,
24 you can't do it the other way; you can only do it this
25 way. Do you see what I mean?

1 BY MR. FITZSIMMONS:
2 Q. It doesn't say that you can only do it one way;
3 it just uses the term "preferably," which means that's a
4 preference, correct?
5 A. Yeah.
6 MR. DOUGLAS: Object to form.
7 BY MR. FITZSIMMONS:
8 Q. Okay. Paragraph 113. Okay. Paragraph 13 -- or
9 excuse me, paragraph 113, is that where you are --
10 A. Yes.
11 Q. -- Mr. Kaschmitter? Okay.
12 Paragraph 113 of Sato discloses after the
13 attachment of the leads to the electrodes, the leads
14 were protected and insulated by a polypropylene adhesive
15 tape with a width of 8 millimeters in the positive
16 electrode plate and by a polyethylene adhesive tape in
17 the negative electrode plate, correct?
18 A. Yes.
19 Q. Here, Sato discloses a first adhesive tape
20 associated with the positive lead and a second adhesive
21 tape associated with the negative lead, correct?
22 A. Where do you see the language "first" and
23 "second" here? Or are you extrapolating?
24 Q. That's -- that's not verbatim.
25 A. Uh-huh.

1 Q. But do you -- is it your understanding that Sato
2 discloses an adhesive tape that's associated with the
3 positive lead and another adhesive tape that's
4 associated with the negative lead?
5 A. Yes.
6 Q. Paragraph 137.
7 A. Okay.
8 Q. Paragraph 137 from Sato says:
9 "The positive electrode surface facing the
10 negative electrode lead position was insulated by a
11 polypropylene adhesive tape in order to prevent lithium
12 deposition."
13 Correct?
14 A. Are you on 137?
15 Q. I believe so. It is -- might be --
16 A. He's talking about peeling --
17 Q. It's almost -- it's actually towards the bottom,
18 and so --
19 A. "The positive," the last sentence?
20 Q. The next-to-last sentence.
21 A. Okay.
22 Q. So I will read that again. So do you see where
23 I am now?
24 A. Yeah. "At this time," is that what you're --
25 Q. After that. The next-to-last sentence, starting

1 with "The positive." Do you see that?
2 A. Yeah.
3 Q. Okay. So paragraph 137, Sato describes the
4 positive electrode surface facing the negative electrode
5 lead position was insulated by a polypropylene adhesive
6 tape in order to prevent lithium deposition, correct?
7 A. Yes.
8 Q. Here, Sato is describing that there is a tape
9 located on the positive active material facing the
10 negative electrode lead, correct?
11 A. Yes, but he doesn't specify anything about it.
12 Just said there is some tape.
13 Q. Okay. So this is with reference to Sato, but I
14 would like you to look in your second declaration.
15 A. Uh-huh.
16 Q. And so this is Exhibit 2018. Let's go to
17 paragraph 21.
18 A. Yes.
19 Q. So paragraph 21 starts on what is, at the
20 bottom, page 11 of 52 and continues onto page 12 of 52,
21 just so --
22 A. I have --
23 Q. Okay.
24 A. Yeah.
25 Q. On that next page --

1 A. 12?
2 Q. 12 of 52, yes. And so it is still paragraph 21,
3 though. You refer to paragraphs 111 and 113 of
4 Exhibit 1005, which is Sato, correct?
5 A. That's right, yes.
6 Q. And you state that, paragraph 111, Sato
7 discloses an exposed portion of the positive electrode
8 having a width of 8 millimeters. Is that correct?
9 MR. DOUGLAS: Object to form.
10 THE DEPONENT: What -- what I'm saying here is
11 that the width of the insulating tape on the tab was 8
12 millimeters and the -- yeah, he's saying in the -- on
13 the previous page, he explains with respect to battery 1
14 portion.
15 THE REPORTER: With respect to battery?
16 THE DEPONENT: Battery 1. With respect to
17 battery 1, the portion where the positive electrode
18 current collector was exposed has a width of 8
19 millimeters.
20 After attachment of leads to the electrodes, the
21 leads were protected by polypropylene adhesive tapes
22 with -- tape with a width of 8 millimeters in the
23 positive electrode plate.
24 BY MR. FITZSIMMONS:
25 Q. Okay. And that's, then, where you cite

1 paragraphs 111 and 113, correct?
2 A. Yes.
3 Q. And so what you're noting here is that Sato
4 discloses an exposed portion of the positive electrode
5 having a width of 8 millimeters, correct?
6 A. Yes.
7 Q. And you are also noting that Sato discloses a
8 polypropylene adhesive tape having a width of 8
9 millimeters, correct?
10 A. Yes.
11 Q. And then in the last sentence of paragraph 21,
12 you state that Sato specifically discloses that the
13 width of the tape matches the width of the recess in one
14 instance, correct?
15 A. Yes.
16 Q. And in this one instance, which is paragraph 113
17 of Sato -- and feel free to refer to Sato -- the
18 adhesive tape is directly covering the positive lead in
19 the positive electrode at the back. Is that correct?
20 A. Yes.
21 Q. Paragraph 113 of Sato does not specify a width
22 dimension for the polyethyl -- polyethylene adhesive for
23 the negative electrode plate, correct?
24 MR. DOUGLAS: Object to form.
25 THE DEPONENT: Well, it says a polypropylene

1 tape with a width of 8 millimeters on the positive
2 electrode plate and by polyethylene adhesive tape in the
3 negative.
4 So what was your question?
5 BY MR. FITZSIMMONS:
6 Q. My question is: In paragraph 113 there of Sato,
7 it does not specify a width dimension for the
8 polyethylene adhesive for the negative electrode plate,
9 correct?
10 A. Not in this paragraph.
11 Q. To your recollection, does Sato provide
12 dimension associated with the adhesive tape in its other
13 example batteries?
14 MR. DOUGLAS: Object to form.
15 THE DEPONENT: I -- I'd have to go look. I --
16 yeah.
17 BY MR. FITZSIMMONS:
18 Q. Okay. But Sato doesn't expressly state in its
19 description that the width of the tape would match the
20 recess width in all instances, correct?
21 MR. DOUGLAS: Object to form.
22 THE DEPONENT: I don't recall him saying that.
23 BY MR. FITZSIMMONS:
24 Q. Okay. I think you have Sato there in front of
25 you?

1 A. Yes.
2 Q. So let's go back to Figure 3 of Sato.
3 A. Okay.
4 Q. Okay. Figure 3 of Sato in Exhibit 1005, it
5 shows a cross-sectional schematic of electrode plate 21,
6 correct?
7 A. Yes.
8 Q. Okay. And Figure 3 shows an extension lead 11
9 disposed on the upper exposed portion 12 of the current
10 collector, correct?
11 A. Well, the arrow on 12 points to the bottom
12 portion, so you have to make an assumption that -- the
13 way you are stating it, that 12 extends on the other
14 side of it.
15 Q. Okay. Figure 3 of Sato shows an extension lead
16 11 disposed on an exposed portion of current collector
17 10, right?
18 A. Yes, I think we can say that, yeah.
19 Q. Figure 3 shows the active material layer 9,
20 correct?
21 A. Yes.
22 Q. And Figure 3, the thickness of the active
23 material layer 9, also referred to as the mixture layer,
24 is greater than the thickness of the lead 11, correct?
25 A. Well, there's no dimensioning. You have to make

1 an assumption. It certainly doesn't specify, if it is
2 less, how much less it is.
3 Q. Uh-huh. In your opinion, would a person of
4 ordinary skill in the art looking at Figure 3 understand
5 that the thickness of the active material layer 9 is
6 greater than the thickness of the lead 11?
7 A. Well, as I said, you -- it's a non-dimensioned
8 drawing. But if you look at it in -- in terms of, I
9 don't know, an artistic representation, 11 is at a lower
10 level than 9, I think is what you're trying to say.
11 Q. Figures 4 and 5 of Sato show a similar
12 arrangement between the thickness of the lead 11 and the
13 thickness of the active material layer 9, correct?
14 A. Yes, the top. The upper portion is identical,
15 it looks like, between the three.
16 Q. Okay. I am going to hand over to you
17 Exhibit 1006.
18 A. Uh-huh.
19 Q. This is the Takamura reference.
20 (Exhibit No. 1006 marked for identification.)
21 BY MR. FITZSIMMONS:
22 Q. Do you recognize this document, Mr. Kaschmitter?
23 A. Yes.
24 Q. Okay. And you've previously reviewed this
25 document, Takamura?

1 A. Yes.
2 Q. Okay. Let's turn to Figure 8 of Takamura,
3 please.
4 A. Okay.
5 Q. And it might be helpful for, like, reference
6 numbers I'm going to refer to, if you just review
7 paragraph 6 through 8 briefly first. Why don't you turn
8 to those.
9 A. It is -- oh, okay, because there's a definition
10 of the numbers here as well.
11 Q. Oh, you can use that as well then.
12 A. Okay.
13 Q. I just wanted you to refamiliarize yourself with
14 the reference numbers because we're going to talk about
15 them. Okay.
16 So Figure 8 of Takamura --
17 A. Uh-huh.
18 Q. -- shows a positive active material layer, which
19 is indicated by reference No. 3, correct?
20 A. I'm sorry, just a second. Yeah, that's correct.
21 Q. Okay. And Figure 8 shows a negative active
22 material layer indicated by No. 4, correct?
23 A. Correct.
24 Q. Figure 8 shows a positive current collector
25 indicated by reference No. 5, correct?

1 A. Yes.
2 Q. Figure 8 shows a negative current collector
3 indicated by reference No. 6, correct?
4 A. Yes.
5 Q. Figure 8 shows a negative lead terminal
6 indicated by reference No. 1 connected to negative
7 current collector 6, correct?
8 A. Yes.
9 Q. And Figure 8 shows a positive lead terminal
10 indicated by reference No. 2 connected to positive
11 current collector 5, correct?
12 A. Yes.
13 Q. Figure 8 of Takamura shows an insulating tape
14 indicated by reference No. 7, correct?
15 A. Yes.
16 Q. Okay. And Figure 8 depicts insulating tape 7 as
17 bending around the end of the negative current collector
18 6, or the reverse C shape, correct?
19 MR. DOUGLAS: Object to form.
20 THE DEPONENT: You're saying it's a reverse C
21 shape. It's -- it -- yeah, I think what you said is
22 probably accurate.
23 BY MR. FITZSIMMONS:
24 Q. Not precisely needing to be a reverse C shape,
25 just trying to orient you to where I was locating to.

1 And so --
2 A. So say it again, so I can --
3 Q. Sure. So Figure 8 depicts insulating tape 7 as
4 bending around the end of the negative current collector
5 6, correct?
6 A. Well, it's bending around a separator at the
7 end.
8 Q. Okay. That's how you would characterize it?
9 A. Yeah, I think separator -- where does it call
10 out separator? Isn't that -- let's see. 8. Well, it
11 doesn't identify 8, so -- it doesn't identify the --
12 what that is. I think it's a separator.
13 Q. I believe what you are referring to is the sort
14 of dotted --
15 A. Yeah.
16 Q. -- material S-shaped layer there?
17 A. Yeah.
18 Q. It does not label --
19 A. Yeah.
20 Q. -- that. I believe that's the separator as
21 well, but that's not --
22 A. So it's wrapping around that.
23 Q. Okay. So the -- the -- so you're saying it
24 wraps around the -- what you believe to be the
25 separator. Is that right?

1 A. Yeah, the portion of the separator at the end of
2 the negative electrode.
3 Q. With this shape of the insulating tape 7, it
4 locates an upper portion of the insulating tape above
5 the negative lead terminal 1 and then a lower portion of
6 the insulating tape below the negative current collector
7 6, correct?
8 MR. DOUGLAS: Object to form.
9 THE DEPONENT: Part -- yeah, as you said, it's a
10 reverse C shape, with the top of the C on the top
11 portion and wrapping around. I think that's what you're
12 trying to say.
13 BY MR. FITZSIMMONS:
14 Q. Figure 8, it shows that upper portion of the
15 insulating tape that's above the lead --
16 A. Uh-huh.
17 Q. -- extending to the left beyond the edge of the
18 negative active material layer 4 in that width
19 left-to-right direction, correct?
20 A. Well, once again, there is no dimensions, but
21 it -- it appears to do that, yeah.
22 Q. And similarly, here it shows the lower portion
23 of that insulating tape 7 extends to the left beyond the
24 edge of the negative active material layer 4 in the
25 width direction, correct?

1 A. Yeah, same caveat, there's no dimensions or
2 anything.
3 Q. Okay. Are there reasons why a person skilled in
4 the art would want the insulating tape to extend beyond
5 the edge of the negative active material layer in the
6 width -- in the width direction as shown in Figure 8
7 there of Sato?
8 MR. DOUGLAS: Object to form.
9 THE DEPONENT: Well, here, I think I described
10 previously, if you want to be very cautious you might
11 extend the tape further. But there's no dimensions, so
12 I don't know what -- I mean, that could be a micron or
13 it could be a millimeter. I don't know.
14 BY MR. FITZSIMMONS:
15 Q. All right. Let's -- you can put Takamura down
16 for a minute. I am going to hand you another reference
17 to be familiar with. This is Exhibit 1008, the
18 Kobayashi reference.
19 (Exhibit No. 1008 marked for identification.)
20 BY MR. FITZSIMMONS:
21 Q. Do you recognize this document, Mr. Kaschmitter?
22 A. Yes. Yes.
23 Q. You previous -- you've previously reviewed
24 Kobayashi. Is that correct?
25 A. Yes.

1 Q. When was the last time you reviewed Kobayashi?
2 A. Oh, in the past couple days I've taken a look at
3 it.
4 Q. Let's look at Figure 1 of Kobayashi. And here,
5 it might be helpful, the page before Figure 1 lists the
6 reference numbers. And paragraph 47, it might be
7 helpful to also refer to.
8 A. Oh, okay. All right.
9 Q. So for Figure 1 of Kobayashi, it shows a
10 secondary battery, which is indicated by reference
11 No. 10, right?
12 A. Yes.
13 Q. Okay. And Figure 1 shows that battery ahead of
14 positive electrode plate indicated by No. 11 and
15 negative electrode plate indicated by No. 12, right?
16 A. Yes.
17 Q. Okay. And then if you look over to the right,
18 there's -- you see Figures 2A and 2B of Kobayashi?
19 A. Yes.
20 Q. And Figures 2A and 2B show an example of a
21 positive electrode plate, which is indicated by
22 reference No. 11A. Is that correct?
23 A. 11A is the positive electrode current collecting
24 tab.
25 Q. Where are you referring to, Mr. Kaschmitter?

1 A. Looking at -- at the drawing under the table in
2 paragraph 47.
3 Q. Okay. If we look at -- do you see above -- so
4 it's capital A. Again, I should have been more -- do
5 you see where you are looking and there's 11 --
6 paragraph 47, it says 11, and there's 11 capital A
7 through 11 capital B. Do you see that it says the
8 positive electrode plate?
9 A. I see 11 capital A to the upper left, and then
10 in Figure 3 there is an 11 capital B to the upper left.
11 Is that what you are referring to?
12 Q. Yes. And so in Figure 2 -- you see Figure 2,
13 and then it -- it says -- there's also Figure 2A and 2B
14 reference labels?
15 A. Yeah, there are --
16 Q. Okay.
17 A. -- underneath on the lower left.
18 Q. Right. And it says on -- directly below Fig. 2,
19 it's -- there's 11 capital A.
20 Do you see that?
21 A. Yeah, directly underneath.
22 Q. And so Figures 2A and 2B are examples of
23 positive electrode plates which are indicated by
24 reference No. 11 capital A, correct?
25 A. I don't see -- oh, there, there. Yeah, it says

1 in paragraph 47, 11, 11A-11D positive electrode plate.
2 So presumably they are all positive electrode plates.
3 Q. And in Figures 2A and 2B, it shows the positive
4 electrode plate 11A has a positive active material layer
5 indicated by reference No. 11b.
6 Do you see that?
7 A. 11b. Yeah, that's the active -- positive active
8 material layer.
9 Q. And that positive active material layer defines
10 a recess or what's also called an exposed core portion
11 indicated by reference No. 11f, correct?
12 A. Yes.
13 Q. Okay. And the current collector is indicated by
14 a reference No. 11c, correct?
15 A. Oh, well, it calls -- I'm looking for -- so 11A
16 is the positive tab, and 11C is a bare patch, we'd say,
17 at the very end of the electrode on the left.
18 Q. So 11c represents the exposed -- an exposed --
19 A. Yes.
20 Q. -- portion, correct?
21 A. That's -- yeah, that's --
22 Q. And you would also consider that the recess,
23 correct?
24 A. No.
25 MR. DOUGLAS: Object to form.

1 BY MR. FITZSIMMONS:
2 Q. No?
3 A. Well, I consider a recess has two or more sides,
4 as I've said before.
5 Q. Okay. And so here, 11c --
6 A. It says "positive electrode core." I guess
7 that's the current collector on the -- that's
8 nonstandard language. See, and up above, it refers to a
9 current collector, but it doesn't call that a core.
10 Q. So paragraph 34.
11 A. Okay.
12 Q. So it says -- so 11c it calls the positive
13 electrode core portion.
14 Do you see that?
15 A. Yeah, just a second. (Reads to self.) Well,
16 it -- it defines a -- I don't know what he means by
17 "core."
18 Q. You have reviewed the Kobayashi reference,
19 correct?
20 A. Yes.
21 Q. Okay. But you don't know what Kobayashi means
22 when it uses the term "core" in the positive electrode
23 core portion 11c?
24 MR. DOUGLAS: Object to form.
25 THE DEPONENT: I -- no, and it doesn't mean that

1 I can magically tell what it is. I'm just saying it --
2 it's unclear to me. I think what he is trying to say is
3 the current collector, but what confuses me is that in
4 one instance he refers to a current collector and then
5 he refers to a core.
6 And so if I make the assumption it's current
7 collector, that's probably what it is, but it's not
8 defined clearly.
9 BY MR. FITZSIMMONS:
10 Q. All right. In Figures 2A and 2B, do you see
11 reference numeral 11F?
12 A. Yes.
13 Q. Would you understand that to be a recess in the
14 active material?
15 MR. DOUGLAS: Object to form.
16 THE DEPONENT: It says "exposed core," which I
17 assume would be a recess.
18 BY MR. FITZSIMMONS:
19 Q. In Figures 2A and 2B, they show a lead tab 11a
20 attached at recess 11F --
21 A. Yeah.
22 Q. -- correct?
23 A. Yes.
24 Q. And Figures 2A and 2B, they show an insulating
25 tape, which is indicated by 25a, correct?

1 A. Yes.
2 Q. Okay.
3 A. But there's also a layer 26, which is a glue
4 layer.
5 Q. Okay. And that glue layer 26 you're -- you can
6 see in Figure 2B. Is that right?
7 A. Yes.
8 Q. Okay. And what Kobayashi refers to as the
9 insulating tape is represented by 11 -- excuse me, 25A,
10 correct?
11 A. Yes.
12 Q. Figure 2B of Kobayashi, that's the bottom one
13 there --
14 A. Uh-huh.
15 Q. -- it shows insulating tape 25A as extending
16 beyond the width of the recess 11F, correct?
17 MR. DOUGLAS: Object to form.
18 THE DEPONENT: Yeah, once more, there is no
19 dimensioning, but if you, you know, assume -- make
20 certain assumptions, it extends beyond.
21 BY MR. FITZSIMMONS:
22 Q. And in Figure 2A of Kobayashi, it shows
23 insulating tape 25A extending beyond the length of
24 recess 11F, which here is in the vertical up-and-down of
25 the page, correct?

1 MR. DOUGLAS: Object to form.
2 THE DEPONENT: Well, it's very hard to determine
3 the exact outline of 11F in the top image because they
4 show the tape, but they -- they show the dashed lines
5 I -- which I assume are, you know, the outline of the
6 electrode underneath the tape, so it's more difficult to
7 tell there than it is in 2B.
8 BY MR. FITZSIMMONS:
9 Q. You're telling me that in Figure 2A it's tough
10 for you to determine whether the insulating tape 25A
11 extends beyond the length of --
12 A. I didn't say --
13 Q. -- recess 11f?
14 MR. DOUGLAS: Object to form.
15 THE DEPONENT: I didn't mean to say length. I
16 meant width.
17 BY MR. FITZSIMMONS:
18 Q. Okay.
19 A. Because that's what you asked about on 2B.
20 Q. All right. And so you agree with Figure 2B --
21 A. Uh-huh.
22 Q. -- that it shows the insulating tape 25A extends
23 beyond the width of the recess 11F, correct?
24 A. Yes.
25 Q. Okay. And now I'm referring to the length now.

1 So in Figure 2A --
2 A. Ah.
3 Q. -- that top view of Kobayashi, it shows
4 insulating tape 25A extending beyond the length of
5 recess 11F, correct?
6 A. In the direction of the lead.
7 Q. So yes, correct?
8 A. In direct -- in the -- only in the direction of
9 the lead. Extending beyond the edge of the electrode in
10 the direction of the lead.
11 Q. Okay. And so Figure 2A of Kobayashi shows
12 insulating tape 25A extending beyond the edge of the
13 electrode in the direction of the lead, correct?
14 A. Yes.
15 MR. DOUGLAS: Objection to form. Asked and
16 answered.
17 BY MR. FITZSIMMONS:
18 Q. You said "yes"?
19 A. Yeah, I did.
20 Q. Okay. So you would agree that Kobayashi here in
21 Figures 25A and 25 -- or excuse me, in Figures 2A and 2B
22 discloses an insulating tape that is both wider and
23 longer than the recess it's associated with, correct?
24 MR. DOUGLAS: Object to form.
25 THE DEPONENT: Yes, with the caveat that there's

1 no dimensioning.
2 BY MR. FITZSIMMONS:
3 Q. Kobayashi was published in March of 2010,
4 correct?
5 A. March 11th, 2010, is the publication date.
6 Q. Okay. And that's about four years before the
7 '498 patent's earliest priority date. Is that right?
8 A. Yes.
9 Q. You agree that before the '498 patent's earliest
10 possible priority date it was known to have an
11 insulating tape extend beyond the length and the width
12 of a recess?
13 MR. DOUGLAS: Object to form. Mischaracterizes.
14 THE DEPONENT: Well, if -- so I just agreed with
15 you that this -- these drawings show it wider if we, you
16 know, take -- take those drawing as is, then you
17 would -- yes, that would be true.
18 BY MR. FITZSIMMONS:
19 Q. Let's look at Exhibit 1012 next. This is the
20 Nakamura reference.
21 THE DEPONENT: How are we doing on time?
22 MR. DOUGLAS: It's 2:22.
23 THE DEPONENT: Has it been over an hour?
24 MR. DOUGLAS: Yeah.
25 MR. FITZSIMMONS: We could pause here before.

1 THE DEPONENT: Yeah, before you get started on
2 that, if you don't mind, I'm just going to --
3 MR. FITZSIMMONS: Let's take a 10-minute break.
4 Off the record.
5 (A recess transpires.)
6 MR. FITZSIMMONS: All right. So we're back on
7 the record.
8 BY MR. FITZSIMMONS:
9 Q. Mr. Kaschmitter, during this last break here,
10 did you have any conversations with counsel about the
11 testimony you have given today or testimony that you
12 are -- will be giving today?
13 A. No.
14 Q. Where we left off, I was about to introduce
15 Exhibit 1012, which is the Nakamura reference. And you
16 are familiar with this document as well,
17 Mr. Kaschmitter, correct?
18 A. Yes.
19 Q. And you've previously reviewed this document,
20 right?
21 A. Yes.
22 Q. And when was the last time that you reviewed
23 this document?
24 A. In the past couple days.
25 Q. Let's turn to paragraph 52, Nakamura.

1 A. Uh-huh.
2 Q. In paragraph 52, Nakamura describes a positive
3 electrode plate 1 having a material-free portion 11 and
4 a positive lead 2 welded to the material-free portion of
5 the electrode plate. Is that right?
6 A. Yes.
7 Q. And you agree that in Nakamura the material-free
8 portion 11 corresponds to a recess, right?
9 MR. DOUGLAS: Object to form.
10 THE DEPONENT: A little hard to see, but I
11 believe that's correct.
12 BY MR. FITZSIMMONS:
13 Q. In paragraph 52, Nakamura also describes
14 applying an insulating tape 15 to cover the positive
15 lead 2. Is that right?
16 A. That's right.
17 Q. Paragraph 52 states the reason for that is to
18 prevent an internal short-circuit, right?
19 MR. DOUGLAS: Object to form.
20 THE DEPONENT: It -- yes.
21 BY MR. FITZSIMMONS:
22 Q. And on paragraph 52, Nakamura discloses that the
23 width of the material-free portion is 5 millimeters,
24 correct?
25 A. For the positive electrode, yeah, its width is 5

1 millimeters.
2 Q. And paragraph 52, Nakamura discloses that the
3 width of the insulating tape 15 is 6 millimeters,
4 correct?
5 A. That's right.
6 Q. So Nakamura discloses an insulating tape having
7 a width that is 1 millimeter greater than the recess
8 width here, right?
9 A. Yes.
10 Q. Okay. And paragraph 52, Nakamura discloses that
11 the length of the material-free portion 11 is 6
12 millimeters, correct?
13 A. I'm sorry, this -- yeah, that's right.
14 Q. And paragraph 52, Nakamura discloses that the
15 length of the insulating tape 15 is 11 millimeters,
16 correct?
17 A. That's right.
18 Q. Okay. And so Nakamura discloses an insulating
19 tape having a length that is 5 millimeters greater than
20 the recess length, correct?
21 A. Yeah.
22 MR. DOUGLAS: Object to form.
23 THE DEPONENT: Sorry.
24 BY MR. FITZSIMMONS:
25 Q. Okay. So you would agree that Nakamura

1 discloses an insulating tape that is both wider and
2 longer than the recess it's associated with, correct?
3 MR. DOUGLAS: Object to form.
4 THE DEPONENT: Yes.
5 BY MR. FITZSIMMONS:
6 Q. Nakamura published in March of 2003, right?
7 A. Yes.
8 Q. And that's about 11 years before the '498
9 patent's earliest possible priority date, right?
10 A. That's the -- yeah, the number of years between
11 all three of 11 -- or 14.
12 Q. Okay. And so you agree that at least about 11
13 years before the '498 patent, it was known to extend an
14 insulating tape beyond the length and width of a recess
15 that it's associated with, correct?
16 MR. DOUGLAS: Object to form.
17 THE DEPONENT: Well, this certainly discloses
18 that, yeah.
19 BY MR. FITZSIMMONS:
20 Q. And Nakamura states the reason for that is to
21 prevent an internal short-circuit, correct?
22 MR. DOUGLAS: Object to form.
23 THE DEPONENT: Where does he say that? I
24 forgot. If it's on 52, I don't see it.
25 ///

1 BY MR. FITZSIMMONS:
2 Q. In the middle of 52?
3 A. In the middle? Oh, preventive. Yeah, I see it,
4 yes. Okay.
5 Q. So Nakamura states the reason for this is to
6 prevent an internal short-circuit, correct?
7 A. Yes.
8 MR. DOUGLAS: Same objection.
9 BY MR. FITZSIMMONS:
10 Q. And --
11 MR. FITZSIMMONS: All right. Let's take a
12 five-minute break.
13 (A recess transpires.)
14 MR. FITZSIMMONS: Back on record. All right.
15 BY MR. FITZSIMMONS:
16 Q. Mr. Kaschmitter, did you have any conversations
17 with counsel during this last break about any testimony
18 that you have given today or that you may plan to give
19 today?
20 A. No.
21 MR. FITZSIMMONS: Okay. Then I have no further
22 questions.
23 MR. DOUGLAS: Okay. Can we go off the record.
24 (A recess transpires.)
25 MR. DOUGLAS: All right. Good afternoon,

1 Mr. Kaschmitter.
2 THE DEPONENT: Good afternoon.
3 EXAMINATION
4 BY MR. DOUGLAS:
5 Q. Earlier today we looked at the Sato reference,
6 Exhibit 1005.
7 Do you remember that?
8 A. Yes.
9 Q. Do you still have the Sato reference,
10 Exhibit 1005, in front of you?
11 A. Somebody organized it. Give me a second.
12 THE REPORTER: I organized it, sorry.
13 THE DEPONENT: Okay.
14 BY MR. DOUGLAS:
15 Q. And Mr. Kaschmitter, earlier today do you recall
16 discussing paragraph 94 of the Sato reference?
17 A. Yes.
18 Q. Will you please turn to paragraph 94 of the Sato
19 reference.
20 A. Okay.
21 Q. In looking at paragraph 94, at the very bottom
22 of page 6 there's a sentence that starts:
23 "This structure is effective," and continues to
24 the next page, "especially for a cylindrical battery."
25 A. Yes.

1 Q. Do you see that?
2 A. Yes.
3 Q. Mr. Kaschmitter, what is a cyl -- what is your
4 understanding of a cylindrical battery?
5 MR. FITZSIMMONS: Objection. Form.
6 THE DEPONENT: It's a steel can, nickel-plated
7 steel can with -- that holds the jelly roll for the --
8 yeah, you know, the active electrodes, separator
9 assembly and has a lid with some safety features built
10 into it.
11 BY MR. DOUGLAS:
12 Q. And then in paragraph 94, skipping a line, Sato
13 continues -- or Sato states:
14 "The other lead is preferably attached to a
15 position at which a short-circuit between the leads does
16 not easily occur and a battery is easily fabricated in
17 terms of the structure of the battery."
18 Do you see that?
19 A. Yes.
20 Q. And Mr. Kaschmitter, do you have an opinion as
21 to why a short-circuit between the leads would occur?
22 MR. FITZSIMMONS: Objection. Form. Objection.
23 Foundation.
24 THE DEPONENT: Well, if you -- if you have the
25 leads -- those leads are fairly long, and when you build

1 the cell, you can have problems if the header is tight
2 because you are trying to maximize your energy density.
3 So if you have the two leads in close proximity and they
4 are fairly long, any kind of movement of the leads or,
5 you know, when they're -- when they're tabbed to the --
6 to the top of the can, you could have shorting at that
7 time. It increases the likelihood of a short.
8 BY MR. DOUGLAS:
9 Q. And then in paragraph 94, Mr. Kaschmitter, Sato
10 continues:
11 "For example, in a cylindrical battery if the
12 positive electrode lead is attached to a portion near a
13 middle portion in the length direction of the electrode
14 plate, the negative electrode lead is preferably located
15 near the outermost portion of the negative electrode in
16 terms of the battery structure."
17 Do you see that?
18 A. Yes.
19 Q. Mr. Kaschmitter, do you have an opinion as to
20 why Sato discloses that in a cylindrical battery he has
21 a preference for the positive lead being attached to a
22 portion near a middle portion in the length direction of
23 the electrode plate and the negative electrode lead is
24 preferably located near the outermost portion of the
25 negative electrode in terms of the battery structure?

1 MR. FITZSIMMONS: Objection. Form. Objection.
2 Foundation. Objection. Leading. Objection. Scope.
3 THE DEPONENT: It -- this is not -- it's not
4 conventional. Negative lead is usually on the innermost
5 wound part for the very -- just the reason that it's
6 easier to weld to the can.
7 BY MR. DOUGLAS:
8 Q. Mr. Kaschmitter, you -- you said earlier, when I
9 was asking you, that Sato in paragraph 94 discloses a
10 cylindrical battery?
11 A. That's right.
12 MR. FITZSIMMONS: There was no question there, I
13 don't think, pending.
14 BY MR. DOUGLAS:
15 Q. Mr. Kaschmitter, you said earlier, when I was
16 asking you, that Sato in paragraph 94 --
17 A. Uh-huh.
18 Q. -- discloses a cylindrical battery. Is that
19 correct?
20 A. Yes.
21 MR. FITZSIMMONS: Objection. Form.
22 BY MR. DOUGLAS:
23 Q. And Mr. Kaschmitter, would a POSITA reading Sato
24 paragraph 94, and especially in terms of a cylindrical
25 battery, prefer that the positive electrode lead is

1 attached to a portion near a middle portion in the
2 length direction of the electrode plate and the negative
3 lead is preferably located near the outermost portion of
4 the negative electrode lead?
5 MR. FITZSIMMONS: Objection. Form. Foundation.
6 Leading.
7 THE DEPONENT: No, I wouldn't agree with that.
8 In other words, you're saying would a POSITA treat this
9 as a preferable instantiation of the design? Is that --
10 make sure I understand your question.
11 MR. DOUGLAS: Let me restate it.
12 BY MR. DOUGLAS:
13 Q. Mr. Kaschmitter, do you have an understanding
14 of -- strike that.
15 Mr. Kaschmitter, do you have an opinion as to
16 why in a cylindrical battery Sato discloses placing
17 an -- a positive electrode lead near a middle portion
18 and the negative electrode lead near the outermost
19 portion of the negative electrode as it states here in
20 paragraph 94?
21 MR. FITZSIMMONS: Objection. Form. And
22 foundation. Leading.
23 THE DEPONENT: He is trying to pass crush test.
24 And so in a -- by putting the positive lead in the
25 center of the jelly roll, it reduces the possibility of

1 damage and shorting in a crush test.
2 BY MR. DOUGLAS:
3 Q. All right. Mr. Kaschmitter, I would like to
4 turn you to your second declaration, if you --
5 A. Uh-huh.
6 Q. -- still have that in front of you. It's marked
7 Exhibit --
8 A. 2018?
9 Q. -- yeah, 2018. Thank you, sir. And if you turn
10 to paragraph 21, please, sir.
11 A. Okay.
12 Q. Do you recall discussing paragraph 21 with
13 counsel earlier today?
14 A. Yes.
15 Q. And would you turn to the -- I guess page 8, and
16 marked in the bottom corner page 12, so the end of
17 paragraph 21, please, sir.
18 A. Yes.
19 Q. And you state in your declaration:
20 "In other words, Sato confirms that the width of
21 the insulating tape, i.e. 8 millimeters, is the same as
22 the width of the exposed portion."
23 Do you see that?
24 A. Yes.
25 Q. And then you state:

1 "A POSITA would understand that because Sato
2 specifically disclosed that the width of the tape
3 matches the width of the recess in one instance, i.e.
4 Sato's battery 1, it would in other instances as well."
5 Do you see that?
6 A. Yes.
7 Q. Mr. Kaschmitter, why did you conclude that
8 because Sato specifically disclosed that the width of
9 the tape matches the width of the recess in one
10 instance, it would in other instances as well?
11 MR. FITZSIMMONS: Objection. Form. Foundation.
12 Leading.
13 THE DEPONENT: He's -- as I said, he's trying to
14 pass crush test, and his concern is that the edges of
15 the recess are more susceptible to damage than the
16 unrecessed portion of the electrode. And so if you put
17 tape over the edges, you're focusing more pressure on
18 the edges, which is more likely to cause damage. So by
19 making the tape the width of the recess, you -- you
20 don't apply excess force to the edges.
21 MR. DOUGLAS: Thank you. I don't have any
22 further questions.
23 MR. FITZSIMMONS: Okay. Let's do a two-minute
24 break.
25 (A recess transpires.)

1 MR. FITZSIMMONS: No further questions.
2 MR. DOUGLAS: Okay.
3 MR. FITZSIMMONS: Mr. Kaschmitter, thank you for
4 your time today.
5 THE DEPONENT: My pleasure. Thanks.
6 (Proceeding Concludes at 3:16 p.m.)
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1 REPORTER'S CERTIFICATE
2
3 STATE OF CALIFORNIA) ss.
4 I, DEREK L. HOAGLAND, CSR #13445, State of California,
5 do hereby certify:
6 That prior to being examined, the witness named in the
7 foregoing proceeding was by me sworn to testify to the
8 truth, the whole truth and nothing but the truth;
9 That said proceeding was taken down by me by stenotype
10 at the time and place therein stated and thereafter
11 transcribed under my direction into computerized
12 transcription.
13 I further certify that I am not of counsel nor attorney
14 for nor related to the parties hereto, nor am I in any
15 way interested in the outcome of this action.
16 In compliance with section 8016 of the Business and
17 Professions Code, I certify under penalty of perjury
18 that I am a certified shorthand reporter with license
19 number 13445 in full force and effect.
20 Witness my hand this 1st day of March, 2026.
21
22 _____
23 DEREK L. HOAGLAND, CSR #13445
24
25

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