

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

BOE TECHNOLOGY GROUP CO.,	)	
LTD.,	)	
	)	
Petitioner,	)	
	)	No. IPR2024-01130
vs.	)	IPR2024-01133
	)	IPR2024-01134
OPTRONIC SCIENCES LLC,	)	
	)	
Patent Owner.	)	
	)	
	)	

VIDEOTAPED DEPOSITION OF
RUSSEL JACOB BAKER, PH.D., VOLUME II
THURSDAY, APRIL 3, 2025, 8:04 A.M.
VIA ZOOM VIDEOCONFERENCE

JOB NO.: 110990
STENOGRAPHICALLY REPORTED BY:
CHERYL HAAB SCOTT, RDR, CRR, CCRR
CA CSR No. 13600
WA CCR No. 3499
NV CCR No. 1003

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IPR2024-01133
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VIDEOTAPED DEPOSITION OF RUSSEL JACOB BAKER,
PH.D., VOLUME II, taken via Zoom Videoconference, on
Thursday, April 3, 2025, at 8:04 a.m., before Cheryl
Haab Scott, RDR, CRR, CCRR, Certified Shorthand Reporter
No. 13600 in and for the State of California, Certified
Court Reporter No. 3499 in and for the State of
Washington, and Certified Court Reporter No. 1003 in and
for the State of Nevada.

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2 --oOo--

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I N D E X
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WITNESS: Russel Jacob Baker, Ph.D.

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6		Partes Review of U.S. Patent	
7		No. 9,406,733"	
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1 THURSDAY, APRIL 3, 2025, 8:04 A.M.

2 VIA VIDEOCONFERENCE, CALIFORNIA

3 --000--

4 THE VIDEOGRAPHER: We're on the record.

5 This is the beginning of Media No. 1 in the
6 deposition of Dr. R. Jacob Baker in the matter of
7 BOE Technology Group Co., Ltd., versus Optronics
8 Sciences LLC, Case Number IPR2024-01134, being held
9 virtually. This deposition is being taken on behalf
10 of the Defendant on April 3rd, 2025. The time is
11 8:05 a.m. The court reporter is Cheryl Scott. I am
12 Jonathan Barker, the videographer on behalf of First
13 Legal Depositions, located in Los Angeles,
14 California.

15 This deposition is being videotaped at all
16 times unless specified to go off the video record.

17 Would all present please identify
18 themselves, beginning with the noticing attorney.

19 MR. CUMMINGS: Good morning. This is Jake
20 Cummings, Jefferson Cummings. With me is my
21 colleague, Peter Tong, and Eric Bretschneider.

22 MR. LIMBACH: Alan Limbach with DLA Piper
23 for Petitioner.

24 THE VIDEOGRAPHER: All right. Will the
25 court reporter please introduce herself and please

1 swear in the witness.

2 THE COURT REPORTER: Good morning. My name
3 is Cheryl Scott. I am a California and Nevada
4 Certified Shorthand Reporter and the deposition
5 officer for today's proceeding. My CSR license
6 numbers are California 13600 and Nevada 1003.

7 --oOo--

8 Whereupon,

9 RUSSEL JACOB BAKER, PH.D.,
10 having been called as a witness,
11 was duly sworn by the court reporter
12 and testified as follows:

13 --oOo--

14 EXAMINATION

15 BY MR. CUMMINGS:

16 Q Good morning, Mr. Baker. I'm Mr. Cummings,
17 an attorney representing Optronics. This is a
18 deposition. I will answer -- I will ask you
19 questions, and you must answer them truthfully.
20 It's a formal legal proceeding just like testifying
21 in court. You're under the same legal obligation to
22 tell the truth, the whole truth, and nothing but the
23 truth. If you don't understand any of my questions,
24 feel free to say so and I will rephrase it.

25 Do you understand this?

1 A Yes.

2 Q Your attorney may object from time to time,
3 but must still answer the question unless your
4 attorney tells you clearly and directly not to
5 answer.

6 Do you understand?

7 A Yes.

8 Q We will take a break from time to time,
9 usually every hour or so, but not during the middle
10 of a question. You need to finish the question
11 before we take a break.

12 Do you understand?

13 A Yes.

14 Q Are you on any drugs or medication that may
15 affect your memory today?

16 A No.

17 Q Is there any other reason why you can't
18 provide truthful testimony?

19 A There is no reason I can't provide truthful
20 testimony.

21 Q Before we begin, same as yesterday, since
22 we're doing this remotely and I can't see anything
23 before you, can you let me know if you have any
24 documents in front of you?

25 A I do not.

1 Q You've been deposed before; correct?

2 A Yes.

3 Q And you're familiar with remote depositions?

4 A Generally, yes.

5 Q And you don't have any chatting programs up
6 to receive any messages today?

7 A No, I don't have anything open except Zoom
8 and a File Explorer.

9 Q Is there anybody else in the room with you?

10 A No.

11 Q After the first day of our deposition, which
12 concluded yesterday, did you consult with your
13 attorney?

14 A No.

15 Q Did you do anything to further prepare for
16 your deposition today?

17 A Yes.

18 Q What did you do?

19 A I looked at my declarations and the cited
20 materials.

21 Q About how long did you spend?

22 A Roughly an hour.

23 Q Now I'd like to get into the substance.
24 Today we'll be talking about Patent No. 9,406,733,
25 which we'll call the '733 patent.

1 You were deposed yesterday on the '509
2 patent; is that correct?

3 **A Yes.**

4 Q And the '733 patent is related to the '509
5 patent, isn't it?

6 **A Yes.**

7 MR. CUMMINGS: I'm going to put Exhibit 13
8 in the chat. This is marked Exhibit 13 for the
9 deposition and is Exhibit 1003 of IPR2024-01134.

10 (Patent Owner's Exhibit 13 was marked.)

11 BY MR. CUMMINGS:

12 Q Can you let me know when you have that open.

13 **A I have it open.**

14 Q I'd like you to take a look at paragraph 45.

15 **A I'm there.**

16 Q In paragraph 45, you state that the field of
17 invention for the '733 patent is the field of
18 electronic and optoelectronic system design;
19 correct?

20 **A Yes.**

21 Q And this is the same field of invention for
22 the '733 patent that you used in the parent '509
23 patent; correct?

24 **A I believe that's correct.**

25 Q Does your testimony from yesterday

1 adequately reflect the '733 patent regarding the
2 field of invention, or are there any distinctions
3 you would like to make?

4 **A I believe it adequately reflects the field**
5 **of invention. I don't want to make any changes.**

6 Q Looking at paragraph 46 now, you state that
7 a POSITA would have had a bachelor's degree in
8 electrical engineering or a comparable field of
9 study plus approximately one or more years of
10 professional experience with electronic and
11 optoelectronic system design. Additional graduate
12 education could substitute for professional
13 experience, and significant experience in the field
14 could substitute for formal education; correct.

15 **A Yes.**

16 Q Your definition here of a POSITA is the same
17 between the '733 patent and the '509 patent;
18 correct?

19 **A Yes.**

20 Q Are there any distinctions you'd like to
21 make regarding the definition of a POSITA, or does
22 your testimony from yesterday adequately reflect
23 your opinion in the '733 patent?

24 **A Can you break that down for me?**

25 Q Sure. Would you like to make any

1 distinctions between how you defined a POSITA
2 compared to what you testified yesterday in the '509
3 patent?

4 **A No.**

5 Q All right. I'd like to direct your
6 attention now to page 5 of the PDF or numbered --
7 page numbered 122 in the bottom right-hand corner --
8 (Reporter clarification.)

9 BY MR. CUMMINGS:

10 Q -- showing a chart of the claims.

11 **A I'm there.**

12 Q The claims of the '733 patent recite the
13 term "auxiliary electrode," don't they?

14 **A Claim 16, for example, of the '733 patent,**
15 **indicates an auxiliary electrode.**

16 Q Is your interpretation of the term
17 "auxiliary" consistent between the '733 and the '509
18 patents?

19 MR. LIMBACH: Objection. Form.

20 **THE WITNESS: Yes. And I discuss this in**
21 **paragraph 55 of my declaration, which is Exhibit 13.**

22 BY MR. CUMMINGS:

23 Q Does your testimony yesterday regarding the
24 term "auxiliary" adequately reflect your opinion on
25 the term in the '733 patent, or are there any

1 distinctions you'd like to make?

2 **A My testimony on auxiliary electrode**
3 **yesterday adequately reflects my opinions for**
4 **auxiliary electrode in the '733 patent.**

5 Q Thank you.

6 I'd like to turn now to paragraph 48 of your
7 declaration.

8 **A I'm there.**

9 Q You've provided an annotated figure 1;
10 correct?

11 **A Yes.**

12 Q And this is figure 1 of the '733 patent?

13 **A Yes.**

14 Q Did you prepare this drawing?

15 **A I don't recall annotating figure 1, but I**
16 **might have.**

17 Q And paragraph 49 shows an annotated figure 6
18 of the '733 patent; correct?

19 **A Yes.**

20 Q Did you prepare this drawing?

21 **A I don't recall annotating figure 6 of the**
22 **'733 patent, but maybe I did.**

23 Q Do you understand the relationship between
24 figure 6 and figure 1?

25 MR. LIMBACH: Objection. Form.

1 **THE WITNESS: In general, yes.**

2 BY MR. CUMMINGS:

3 Q Can you explain the relationship between
4 figure 1 of the '733 patent and figure 6 of the '733
5 patent?

6 A Well, can we put the '733 patent as an
7 exhibit?

8 Q We'll get to that.

9 First, based on your current understanding
10 as you used it in your declaration.

11 A So from memory -- and memory is faulty --
12 figure 1 is a schematic implementation of the
13 embodiment of the invention of the 733, and a
14 cross-sectional view in figure 6 is a portion of
15 figure 1 drawn in a representative process; but
16 again, memory is faulty, and so there's probably a
17 more precise way, if I had the patent, that I could
18 describe those figures in terms of what the patent
19 uses or describes.

20 MR. CUMMINGS: All right. I'm going to put
21 what I'm marking as Exhibit 14 into the chat, and
22 this is Exhibit 1001 in IPR2024-01134. This is the
23 '733 patent.

24 (Patent Owner's Exhibit 14 was marked.)

25 ///

1 BY MR. CUMMINGS:

2 Q Now, with the '733 patent in front of you,
3 is there any changes you would like to make?

4 A Yes. Figure 6 is a schematic
5 cross-sectional view of a pixel structure according
6 to the fifth embodiment of the invention, and
7 figure 1 is an equivalent circuit diagram of a pixel
8 structure of the invention.

9 Q So how did the two relate in your definition
10 there?

11 A In my description, figure 1 would be the
12 circuit diagram, and figure 6 would be the fifth
13 embodiment of that pixel structure depicted in the
14 circuit diagram of figure 1.

15 Q Based on the figure in figure 1, would you
16 be able to discern the resulting structure in
17 figure 6?

18 MR. LIMBACH: Objection. Form.

19 THE WITNESS: There's no relationship, as I
20 testified many times yesterday, between the physical
21 implementation of a circuit schematic or diagram and
22 its actual physical implementation.

23 So I gave the example that you could have a
24 breaker box and an outlet, and the schematic would
25 show a wire connecting the breaker box to the

1 outlet. That has nothing to do with the route or
2 the physical path that the wire would take in going
3 from the breaker box to the outlet.

4 So I can discern and correlate between the
5 numbers identified in the figures to see what the
6 fifth embodiment is teaching, but without that
7 figure 6, I can't go from figure 1 to create
8 figure 6.

9 BY MR. CUMMINGS:

10 Q While using figure 6 as a guide to interpret
11 its relationship to figure 1 of the '733 patent,
12 does the first electrode layer 132, which you've
13 colored -- or you've marked up in your annotated
14 figure 6, does the first electrode layer 132 connect
15 to power line in figure 1 of the '733 patent, marked
16 "PL"?

17 A In figure 6, you only see a portion of the
18 cross-sectional view; so you don't see where the
19 light green 132 is connected other than to the
20 organic material 134, which is part of the
21 light-emitting diode 130.

22 Q Do you know what portion of figure 6
23 connects to PL as shown in figure 1 of the '733
24 patent?

25 A Yes. The layers 132 and 160, those go to

1 the anode of the light-emitting diode 130.

2 Q Looking at figure 2 in light of what you've
3 just said, do you understand the direction that
4 anode 132 would need to extend in order to connect
5 to the power line? For example, would it extend to
6 the left or right or in or out of the page?

7 A 132, in one example, may extend into the
8 page or out of the page to connect to adjacent
9 pixels in a column.

10 Q And the adjacent pixels in the column
11 ultimately connects to power line PL?

12 A All of the pixels in a column in the display
13 are connected to PL power line. In other words, all
14 of the pixels receive power.

15 Q Are they directly connected to PL?

16 MR. LIMBACH: Objection. Form.

17 THE WITNESS: They're all wired to the power
18 line. They can't operate unless all of them receive
19 power.

20 BY MR. CUMMINGS:

21 Q Would you agree that the power line and the
22 auxiliary electrode are different structures?

23 A The auxiliary electrode in, for example,
24 figure 6, is connected to the power line, so I
25 don't -- I wouldn't agree with that. The auxiliary

1 electrode 460 and the material 132 in the
2 light-emitting diode are all connected to the power
3 line. Again, there's a -- you can't take a look at
4 a schematic and say -- and try to -- try to say that
5 somehow relates to a physical structure.

6 I've given examples of the breaker box and
7 the outlet. The takeaway is that the auxiliary
8 electrode and the material 132, the anode of the
9 LED, are tied to the power line. If they weren't,
10 the pixel wouldn't receive power and operate. And I
11 know that the auxiliary structure 460, the auxiliary
12 electrode, and the -- and the material 132 are
13 connected to the power line because they're both
14 shorted together.

15 Q But that wasn't my question. My question
16 wasn't whether they were electrically connected; my
17 question is whether they were different structures.

18 A I know. Again, the structure of something
19 and its label in a schematic are unrelated other
20 than you can say the structure is or has the label
21 of the schematic, and that's what I was saying.

22 Q Well, how about we just look at figure 6.
23 The anode 132 would be in a different layer than the
24 460 element, wouldn't it?

25 A Yes.

1 Q And those would be deposited at different
2 times?

3 A Yes. The structures would be fabricated at
4 different points.

5 Q All right. I'd like to move on and direct
6 your attention to paragraph 22 of your declaration.
7 Can you let me know when you're there.

8 A I'm there.

9 Q You see that Claim 1, you have offered as
10 being anticipated under 35 USC Section 102 in view
11 of Hekmatshoar; is that correct?

12 A Yes.

13 Q You also see that in Ground 3, you've
14 offered Claim 1 under 35 USC Section 103 in view of
15 Hekmatshoar, in view of Gupta or Han; is that
16 correct?

17 A Yes.

18 Q Why did you include Section 103 argument for
19 Ground 3 based on a proposed modification of
20 Hekmatshoar if you thought Hekmatshoar alone
21 anticipated the claim in Ground 1?

22 A In Ground 3, I used the construction of
23 auxiliary electrode that was narrower as a
24 supplemental electrode to reduce the total
25 resistance of the pixel structure.

1 And in Ground 1, I used the construction
2 supplemental auxiliary electrode, supplemental
3 electrode.

4 Q I know we touched on this earlier, but I
5 want to be clear: Your interpretation of the term
6 "supplemental" is also the same as you testified
7 yesterday with respect to the '509 patent?

8 A My testimony yesterday on supplemental
9 electrode should apply as well today, yes.

10 Q Thank you. All right. Let's go to
11 paragraph 80. This should be in the grounds of
12 Hekmatshoar, the 102 ground. Can you let me know
13 when you're there.

14 A I'm there.

15 Q Here, you've provided annotated figures.
16 Can you tell me what they are and where they're
17 from?

18 A Figure 1 in paragraph 80 on the left is from
19 the '733 patent, and figure 1C, which is labeled C
20 on the right, in paragraph 80, is from Hekmatshoar.
21 And that's spelled H-e-k-m-a-t-s-h-o-a-r.

22 And if we're going to talk about
23 Hekmatshoar, can I get a copy of that?

24 Q I'll get you a copy in a moment.
25 First, did you annotate these figures

1 yourself?

2 **A I don't think so, but I don't recall.**

3 Q Looking at these figures, the label "VDD" on
4 figure 1C of Hekmatshoar corresponds to the element
5 labeled "PL" in figure 1 of the '733 patent;
6 correct?

7 **A Yes.**

8 Q I'd like to scroll down a little bit to
9 paragraph 91.

10 **A I'm there.**

11 Q Here, you point to the interconnect which
12 you've colored in red lettering as being the
13 auxiliary electrode; is that correct?

14 **A Yes. In Hekmatshoar, what I've colored red**
15 **is the auxiliary electrode. It's -- let me see if I**
16 **can find a more clear indication with the arrow.**
17 **The red coloring with the interconnect is in text,**
18 **and in the following page, I've circled the**
19 **interconnect. So this is on page -- on paragraph**
20 **93. The interconnect in red -- sorry, it's end**
21 **paragraph 93 on page 39, which is Exhibit 1003 of**
22 **the proceedings of page 162.**

23 Q And in paragraph 93, I see that you've
24 circled it in red, but the interconnect itself is
25 the black structure that the arrow is pointing to;

1 correct?

2 A Yes.

3 Q And looking at this structure, the
4 interconnect in black is connected to a red figure
5 labeled ITO anode; is that correct?

6 A Yes. The interconnect is connected to the
7 anode of the LED.

8 Q And we agree that the interconnect as
9 pictured is not in the same layer as the ITO anode?

10 A Yes.

11 Q And the interconnect is an additional layer
12 that's formed on the anode; correct?

13 MR. LIMBACH: Objection to form.

14 THE WITNESS: I don't think I would agree
15 with that. For example, on the right side, it's
16 not -- it's not -- if you draw a vertical line, the
17 ITO or the anode is not in or doesn't intersect that
18 vertical line.

19 BY MR. CUMMINGS:

20 Q But the interconnect, at least on the left
21 portion, is disposed on top of the ITO anode;
22 correct?

23 A Well, the interconnect makes a connection to
24 the anode, yes.

25 Q How would it do that if it were not in a

1 layer disposed on top of the ITO anode?

2 MR. LIMBACH: Objection to form.

3 THE WITNESS: It only will touch -- the
4 interconnect will only touch the ITO anode if there
5 is a via or hole that is fabricated so that when the
6 interconnect is deposited, it falls down in the hole
7 and touches the ITO anode; and you can see the
8 interconnect doesn't touch the ITO anode, even
9 though it's above it in some places, but it does
10 touch it, and there's a hole that it can fall down
11 in and make a connection.

12 BY MR. CUMMINGS:

13 Q So just to confirm everything: The
14 interconnect is made in a layer at some time after
15 the ITO anode has been formed; correct?

16 A Yes.

17 Q A structure that's formed in a different
18 layer may be made of a different material; correct?

19 A Yes.

20 Q And a structure that's made in the same
21 layer would be made of the same material as the rest
22 of the elements in that layer; correct?

23 A Yes.

24 Q Based on your understanding of Hekmatshoar
25 and as it's used in the declaration, what is the

1 interconnect, exactly? For example, is it a wire or
2 a bus or something else?

3 **A Again, may I have a copy of Hekmatshoar to**
4 **refresh --**

5 Q Oh, I'll give you a copy in a moment and you
6 can refresh your memory and correct anything you say
7 if you'd like. But for now, going off your memory
8 and what you've used in your declaration.

9 MR. LIMBACH: Let the record reflect that
10 this is one of many requests of the witness for
11 copies of documents that were not provided to allow
12 him to answer his question.

13 **THE WITNESS: The interconnect is a**
14 **conducting material.**

15 BY MR. CUMMINGS:

16 Q So would that be a wire or a bus?

17 **A It's a conducting material. I don't recall**
18 **Hekmatshoar calling it a wire or bus, but I wouldn't**
19 **be surprised if it called it a "wire" or "provided**
20 **local wiring." But again, I don't remember.**

21 Q Is it your understanding that an
22 interconnect is synonymous with an electrode?

23 **A If it's a conductor, yes.**

24 Q Is the term "conductor" synonymous with
25 "electrode"?

1 A I don't recall rendering that opinion, but I
2 would think in general, yes; but again, I don't
3 recall rendering an opinion on that, if "electrode"
4 and "conductor" were synonyms. But I think in
5 general, for these patents, they are.

6 Q Can you think of an example where they
7 wouldn't be synonymous?

8 A Yes.

9 Q What is that?

10 A If somebody called an electrode something
11 that wasn't conductive -- for example, in a patent,
12 they defined an electrode as being something that
13 you connect to but it's not conductive.

14 Q Referring to figure 3 and figure 6 of
15 Hekmatshoar shown in paragraph 93 of your
16 declaration, it shows an ITO anode; correct?

17 A Both figure 3 and figure 6 show an ITO
18 anode, yes.

19 Q The ITO in ITO anode stands for indium tin
20 oxide; correct?

21 A Yes.

22 Q And in your testimony yesterday, you agreed
23 that ITO has a higher resistance than other
24 conductors like aluminum or copper; correct?

25 A Yes.

1 Q You also testified that ITO is often used as
2 an anode in displays because it is transmissive to
3 light; is that correct?

4 A It's often used in displays because yes,
5 light can get through it.

6 Q Is the interconnect in Hekmatshoar made of
7 indium tin oxide?

8 A I don't believe so, but I don't remember.

9 MR. CUMMINGS: I'll give you a copy of
10 Hekmatshoar now, and we'll call this Exhibit 15.
11 This corresponds to Exhibit 1004 in IPR2024-01134.

12 (Patent Owner's Exhibit 15 was marked.)

13 BY MR. CUMMINGS:

14 Q Once you have that up and you've had a
15 chance to review it, can you tell me what the
16 interconnect in Hekmatshoar is made of?

17 A Looks like it's made of -- the interconnect
18 is made of the gate material used to fabricate the
19 polysilicon thin film transistors.

20 Q Can you cite to where in Hekmatshoar it says
21 that?

22 A There's an underlying assumption in your
23 question that Hekmatshoar clearly defines that. I
24 answered based on the disclosure of the figures and
25 the discussion in page 2, left column, starting in

1 the first full paragraph. If you look at, for
2 example, figure 2A, and you look at the reference to
3 "gate," which is a thin black line, the discussion
4 talks about fabricating polysilicon thin film
5 transistors.

6 Now, if you go to, for example, figure 3,
7 you're using the same images in figure 2 but
8 expanded a bit. So the interconnect is -- appears
9 to be made with polysilicon; however, I don't
10 think -- I think it's clear in Hekmatshoar that the
11 point of the interconnect is it's an electrode, a
12 conductor, that's used in their pixel.

13 Q Can you tell me what exactly the
14 interconnect does in Hekmatshoar?

15 A Yes. Makes a connection to the anode of the
16 LED.

17 Q Okay. The anode -- it connects the anode to
18 what?

19 A As seen in figure 1C on page 1 of
20 Hekmatshoar, it connects it to VDD.

21 Q But you're pointing there at the circuit
22 diagram. How do you know that it corresponds to the
23 structural diagram?

24 A The anode and the interconnect in figure 3
25 of Hekmatshoar are connected to VDD. You can see

1 that the anode in figure 1C is also connected to
2 VDD. So you know they're connected; you just don't
3 know exactly how many ways they're connected or the
4 actual physical route of how they're connected, but
5 you do know they're connected because you see it in
6 the schematic. It's like the -- having the wire
7 between the outlet and the breaker box. You know
8 it's connected because you can see it in the
9 schematic, but you don't know the path that the wire
10 takes to go from the breaker box to the outlet or if
11 it takes multiple paths for some reason.

12 When we get a good breaking point, can we
13 take a break?

14 MR. CUMMINGS: Sure. I think we can
15 probably break now. I'm going to move on to the
16 next line of questioning. So I'm good to go off the
17 record.

18 THE VIDEOGRAPHER: It's 9:02, and we're off
19 the record.

20 (Recess.)

21 THE VIDEOGRAPHER: The time is 9:14, and
22 we're back on the record.

23 BY MR. CUMMINGS:

24 Q Dr. Baker, I'd like you to take a look at
25 paragraph 96. This is the beginning of your second

1 ground that Claims 1 through 5 are rendered obvious
2 by Lee in view of Hekmatshoar or Weaver; correct?

3 A Yes.

4 Q In this ground, you're using Lee as the
5 primary and Hekmatshoar or Weaver alternatively as
6 secondaries; correct?

7 A Yes.

8 Q In paragraph 115, you provide an annotated
9 figure 1 of Lee; is that correct?

10 A Yes.

11 Q In this annotated figure 1 of Lee, TFT
12 transistor is colored purple; correct? And that's
13 denoted with "TR."

14 A Yes.

15 Q Did you annotate figure 1 of Lee yourself?

16 A I don't think so, but I don't recall.

17 Q You've repeatedly testified that you may not
18 have annotated these drawings that you used in your
19 report. If you did not annotate them, who did?

20 A The attorneys that I was working with for
21 BOE.

22 Q And how did you get them?

23 A I discussed my position with the attorneys.
24 They acted like my scribe, and they provided me with
25 the images -- for example, if I didn't create them

1 **myself, which I, again, don't recall.**

2 Q I'd like to point your direction now to
3 paragraph 120.

4 Can you let me know when you're there.

5 **A I'm there.**

6 Q Shown on the left is figure 1, and this is
7 from the '733 patent; correct?

8 **A Yes.**

9 Q Then, in the middle is figure 1C from
10 Hekmatshoar; correct?

11 **A Yes.**

12 Q And on the right is figure 2 of Weaver;
13 correct?

14 **A Yes.**

15 Q The label VDD in figure 1C of Hekmatshoar
16 and figure 2 of Weaver corresponds to PL of the
17 figure 1 of the '733 patent; correct?

18 **A Yes.**

19 Q Now looking at paragraph 121 just below it,
20 you're asserting that Lee's active device, TFT
21 transistor, would be implemented into either
22 Hekmatshoar's figure 1C or Weaver's figure 2;
23 correct?

24 **A Lee's active thin film transistor could be**
25 **used with Hekmatshoar or Weaver for operating the**

1 light-emitting diode of Lee as I indicated in
2 paragraphs 120 and 121 of my declaration, and I've
3 tried to annotate the figures in paragraph 120 to
4 show the correspondence.

5 Q What, if any, modifications would need to be
6 made to Lee's TFT transistor in order for it to be
7 implemented into the circuits depicted by
8 Hekmatshoar or Weaver?

9 MR. LIMBACH: Objection. Form.

10 THE WITNESS: If I understand what you're
11 asking, there wouldn't be any modifications other
12 than the one I described of the connections to the
13 transistor, but none to the transistor.

14 BY MR. CUMMINGS:

15 Q Now, I'd like to move on to paragraphs 155
16 to 158. Can you let me know when you're there.

17 A I'm there.

18 Q In paragraph 155, you offer alternative
19 theories of what the proposed first isolating
20 structure is; is that correct?

21 A As discussed in the first paragraph of 155,
22 yes.

23 Q Why do you provide alternative proposed
24 structures?

25 A Because either one will work to teach a

1 first isolating structure. In other words, either
2 one will work to teach Claim element 4A.

3 Q All right. I'd like to move on now to your
4 third ground. And this is using Hekmatshoar with
5 Gupta or Han, and it begins on paragraph 167; is
6 that correct?

7 A Yes.

8 Q Did your testimony yesterday -- does that
9 accurately reflect what you believe the Gupta
10 reference to teach, or is there anything you'd like
11 to add in the context of the '733 patent?

12 A I can't think of anything right now that I
13 would like to add other than my discussion in the
14 declaration, which is already in the record.

15 Q What about your testimony with respect to
16 Han? Does that accurately reflect what you believe
17 the Han reference to teach? Or is there anything
18 you'd like to add today in the context of the '733
19 patent?

20 A My opinions on Han in Ground 3 of the '733
21 patent IPR are in my declaration, so they're in the
22 record; and I can't think of anything sitting here
23 right now that I would want to add to my testimony
24 yesterday.

25 Q In paragraph 177, you provide an annotated

1 circuit diagram from Hekmatshoar figure 1C; is that
2 correct?

3 A Yes. I've annotated figure 1C of
4 Hekmatshoar in paragraph 177.

5 Q Now, when you say you've annotated
6 figure 1C, you mean the attorneys at BOE; correct?

7 A Again, I don't recall personally drawing the
8 annotations. That's not to say I didn't. But I --
9 the opinions in the declaration are mine and nobody
10 else's. So when I say "my annotations," it's a
11 reference to my opinions.

12 Q In Ground 3, you don't provide an annotated
13 structural diagram to Hekmatshoar showing the
14 proposed modification, do you?

15 A No.

16 MR. CUMMINGS: All right. I'm going to put
17 Exhibit 16 into the chat. This is marked
18 Exhibit 1007 in IPR2024-01134. And this is the
19 Gupta reference.

20 (Patent Owner's Exhibit 16 was marked.)

21 BY MR. CUMMINGS:

22 Q I'm going to do the same exercise we did
23 yesterday and share my screen and have you explain
24 to me how this proposed combination will look,
25 starting with Hekmatshoar. What figure would you

1 like to start with?

2 A I didn't include figures in this ground or
3 the ones necessary because I didn't think they were
4 necessary to illustrate that the supplemental
5 electrode in the combination was connected in
6 parallel with the electrode of the LED to reduce the
7 overall resistance.

8 But basically, what we want to show, if you
9 want to show it, is just the connection of the
10 auxiliary electrode in Gupta or Han in parallel with
11 the auxiliary electrode in Hekmatshoar.

12 So, for example, just to answer your
13 question, if we go to Hekmatshoar and we look at --
14 let's just use figure 3B.

15 Q All right. I'm sharing my screen. Here is
16 Hekmatshoar, figure 3B.

17 A So what may already be taught Hekmatshoar is
18 that the interconnect there, the auxiliary
19 electrode, is connected to the electrode, the anode,
20 throughout the entire array so that the structures,
21 the interconnect, and the anode are in parallel.

22 And so I think just looking at figure 3C
23 alone -- I'm sorry, 3B alone, and noting that as
24 taught in Gupta or Han, the connection of the
25 interconnect is throughout the entire column and

1 connected to the anode alone is enough to show the
2 parallel connection and the narrower construction of
3 auxiliary interconnect.

4 So I don't think we need to make any
5 modification. We can just comment that figure 3B is
6 the cross-sectional view, where the interconnect is
7 connected to the anode and that interconnect goes
8 from the top of the column to the bottom of the
9 column so that the anodes are all connected in
10 parallel to that auxiliary electrode. That is the
11 interconnect labeled in figure 3B of Hekmatshoar.

12 Q So just to confirm: There's no additional
13 drawings you'd like me to make to figure 3B of
14 Hekmatshoar?

15 A Correct. The support in Gupta and Han
16 teaches that having the parallel interconnect of
17 that interconnect, meaning it's connected in each
18 pixel going into the page and out of the page,
19 provides the -- or teaches the narrower construction
20 of auxiliary electrode that is a supplemental
21 electrode to reduce the total resistance of the
22 pixel structure.

23 In simpler terms, that interconnect will
24 extend beyond the pixel and extend to adjacent
25 pixels; and that will teach auxiliary electrode in

1 the narrower construction.

2 Q Well, in light of your testimony just now, I
3 don't think it's necessary to introduce this as an
4 exhibit, and I will just refer the board to
5 figure 3B shown in Hekmatshoar.

6 Is that fair?

7 A Yes. And as discussed in paragraph 169 of
8 my declaration.

9 MR. CUMMINGS: All right. Well, I think
10 that is all I have for you at this time, Dr. Baker.

11 THE WITNESS: Thank you.

12 THE VIDEOGRAPHER: Go off the record?

13 MR. CUMMINGS: Yes, let's go off the record.

14 MR. LIMBACH: Let's stay on the record.

15 The agreement by the parties was to expedite
16 and -- for expediency, is to have the redirect for
17 both the 509 IPR01133 and for the '733 patent, the
18 01134 proceeding, to be combined together and so
19 that would be the next proceeding in this
20 deposition. Are we in agreement?

21 MR. CUMMINGS: Yes.

22 MR. LIMBACH: In that case, I'd like to take
23 a ten-minute break, and then we'll start with the
24 redirect.

25 THE VIDEOGRAPHER: It's 9:37. And we're off

1 the record.

2 (Recess.)

3 THE VIDEOGRAPHER: The time is 9:47, and
4 we're back on the record.

5 --o0o--

6 EXAMINATION

7 BY MR. LIMBACH:

8 Q Dr. Baker, so this is going to be the
9 redirect for IPR2024-01133 and 2024-01134 that
10 relate to both the '509 patent and the '733 patent
11 that you've testified to.

12 Do you understand that?

13 A Yes.

14 Q I'd like to start with you opening up your
15 declaration for the '509 patent, which is Exhibit 1.
16 Let me know when you have that open.

17 A I have it open.

18 Q Okay. And I'm going to be referring to page
19 numbers, and these are your page numbers, not the
20 page number marked at the bottom.

21 Do you understand that?

22 A Yes.

23 Q So please go to your page number 11.

24 A I'm there.

25 Q There's a table on this page at the top.

1 Do you see that?

2 A Yes.

3 Q And this is a summary of the opinions you've
4 rendered in your declaration?

5 A Yes.

6 Q There are ten grounds listed; is that right?

7 A Yes.

8 Q So looking at Ground 1, that's a ground
9 that's listed as "35 USC 102, Anticipation."
10 Do you see that?

11 A Yes.

12 Q And that's based on which reference?

13 A Prior art reference Weaver.

14 Q Now, I'm going to read a question and answer
15 from yesterday's testimony.

16 And, Counsel, I'm going to be reading from
17 the rough draft that was circulated last night,
18 starting at page 103. And I'll wait until you have
19 that up and you're ready to go.

20 MR. TONG: I have it. Is there a particular
21 page?

22 MR. LIMBACH: Page 103.

23 MR. TONG: All right. Please go ahead.

24 BY MR. LIMBACH:

25 Q I'm going to read the question and then your

1 answer.

2 The question is:

3 "Let's break apart your answer. You said, I
4 didn't put that opinion in my declaration. So I
5 want to clarify what 'that opinion' refers to. Is
6 the case that you did not include any opinion about
7 whether or not Weaver anticipates the claims alone,
8 under the narrower construction into your
9 declaration?"

10 Your answer was:

11 "That is correct. I didn't put that opinion
12 in there, as I explained. Neither the '509 or
13 Weaver talk about the adjacent connections of
14 pixels."

15 Do you recall that testimony?

16 **A Yes.**

17 **Q** When you referred to the "narrower
18 construction," what were you referring to?

19 **A In paragraph 77 of my declaration, the**
20 **narrower construction is supplemental electrode to**
21 **reduce the total resistance of the pixel structure.**

22 **Q** Let's read paragraph 77. And this is the
23 second paragraph in Ground 1 section of your
24 opinion; is that right?

25 **A Yes.**

1 Q It says:

2 "The construction of 'auxiliary electrode' I
3 applied for Ground 1 is 'supplemental electrode' and
4 'supplemental electrode to reduce the total
5 resistance of the pixel structure.'"

6 Do you see that?

7 A Yes.

8 Q So which constructions did you apply to
9 Ground 1?

10 A Both constructions for auxiliary electrodes.
11 So if I said that I didn't apply the narrower
12 construction yesterday, that was wrong.

13 Q Can you go to page 36 of your declaration.

14 A I'm there.

15 Q Paragraph 89, you quote the language of
16 Claim 1, "a first auxiliary electrode electrically
17 insulated from the active device."

18 Do you see that?

19 A I see those words, yes.

20 Q Is this where you applied the two
21 constructions that we just talked about for
22 auxiliary electrode?

23 A Yes. And in particular, figure 6 shows that
24 430 extends from one side to the other side of the
25 pixel structure, which would connect adjacent pixel

1 structures.

2 I keep forgetting about figure 6. So if I
3 testified, which it sounds like I did yesterday,
4 that the auxiliary structure wasn't extending from
5 one side to the other in -- in Weaver, that's
6 because I forgot about figure 6.

7 Q Go back to page 11.

8 A Okay.

9 Q Grounds 2 and 3 relate to Claims 6 through
10 8; is that right?

11 A Yes.

12 Q And Grounds 4 and 5 relate to Claims 11
13 and -- 10 and 11?

14 A Yes.

15 Q Let's go to Ground 4, which starts on
16 page 76.

17 A Okay.

18 Q This is an opinion based upon Weaver and Lee
19 149?

20 A Yes.

21 Q On page 77, there's an annotated figure of
22 Lee?

23 A Figure 1 of Lee 149 is annotated in
24 paragraph 177 of my declaration, yes.

25 Q Is there a light-emitting device shown in

1 this figure?

2 A Yes.

3 Q Can you identify its components?

4 A First electrode 41 that I highlighted in
5 light green; organic electroluminescent layer 60,
6 which I highlighted in light blue; and second
7 electrode 70, which is highlighted or annotated in
8 green.

9 Q What is element 45, the one highlighted in
10 red? What is that?

11 A Electrode pattern.

12 Q If I recall from your testimony, it's your
13 opinion that that teaches the second auxiliary
14 electrode of Claim 10?

15 A Yes.

16 Q Is the electrode pattern 45 electrically
17 connected to the first electrode layer 41?

18 A Yes.

19 Q How so?

20 A Is there a question?

21 Q I asked, how are they electrically
22 connected?

23 A 45 is sitting on 41.

24 Q When you say "sitting on," are you referring
25 to physical contact?

1 **A Yes. 45 is physically connected to 41.**
2 **Your audio dropped off, and I only heard kind of a**
3 **grunt or something like that.**

4 Q The wonders of remote depositions. Sorry
5 about that.

6 If you could, go down to paragraph 180,
7 please.

8 **A I'm there.**

9 Q Here, it says:

10 "It would have been obvious to a POSITA to
11 combine the teachings of Weaver and Lee 149 to add a
12 second electrode -- second auxiliary electrode to
13 the side of the OLED 400 of Weaver."

14 Do you see that?

15 **A Yes.**

16 Q Do you provide a figure showing that?

17 **A Lee 149 already shows the electrode pattern**
18 **45 to the side of the light-emitting diode. So I**
19 **don't believe I needed to show that again for Weaver**
20 **because it's already shown in Lee 149.**

21 Q Let me rephrase my question. And this
22 relates back to questioning yesterday by counsel,
23 when they asked you, did you take Weaver --

24 (Reporter clarification.)

25 ///
26

1 BY MR. LIMBACH:

2 Q I'll start again.

3 Did you take a figure from Weaver and modify
4 it to show how it could be altered with the
5 auxiliary electrode of Lee 149?

6 MR. TONG: Objection. Form.

7 **THE WITNESS: Are you asking if I did that**
8 **during the deposition?**

9 BY MR. LIMBACH:

10 Q Did you do it in your report?

11 **A Not that I recall; but if you point me to**
12 **the right place in the declaration, maybe it'll**
13 **refresh my memory.**

14 Q Well, you made a reference to yesterday. So
15 could you please open Exhibit 9. Let me know when
16 you get that open.

17 **A I have it open.**

18 Q Do you recognize this document from
19 yesterday's testimony?

20 **A Yes.**

21 Q Who drew this drawing?

22 **A Pardon?**

23 Q Who drew this drawing?

24 MR. TONG: Objection. Form.

25 **THE WITNESS: Mr. Tong.**

1 BY MR. LIMBACH:

2 Q It was the counsel who was taking the
3 deposition?

4 A Yes.

5 Q If you were to have included a drawing
6 showing the modification of Weaver to incorporate
7 the auxiliary electrode from Lee 149, would you have
8 drawn it this way?

9 MR. TONG: Objection. Leading.

10 THE WITNESS: I mean -- just -- I wouldn't
11 have drawn it this way. And I later in the
12 deposition remind -- or realized I drew it wrong and
13 so we did a second drawing. I probably wouldn't
14 have drawn it the same way I -- that Mr. Tong drew
15 it in the second drawing, which is Exhibit 11,
16 because I just would need some time to think about
17 the best way to illustrate the combination.

18 BY MR. LIMBACH:

19 Q You testified yesterday regarding whether
20 this was electrically correct?

21 A I realized I made a mistake in Exhibit 9,
22 and testified it was wrong. That's why you don't
23 form opinions in depositions and realized that both
24 sides of the LED the way I drew it were shorted
25 together, so it wouldn't work.

1 Q Do you see the red box that's kind of at an
2 angle to the right of what is labeled "Additional
3 electrode layer"?

4 A Yes.

5 Q Would you have drawn it that way had you
6 been creating this document?

7 A No.

8 Q The left-hand side of this drawing has
9 annotations. Those are from your report?

10 A Yes.

11 Q If I recall correctly -- let's go down to
12 Ground 2 of your report, which is Weaver and Lee
13 053, which is on page 49.

14 A Okay.

15 Q This ground is relating to Claim 6, not
16 Claim 10; right?

17 A Ground 2 is related to Claims 6, 7, and 8.

18 Q And Claim 6 regards -- let's just go to
19 paragraph 122, where the Claim 6 is quoted. And
20 that begins:

21 "The pixel structure, according to Claim 1,
22 wherein the first auxiliary electrode comprises a
23 bottom electrode layer and top electrode layer."

24 Do you see that?

25 A Yes.

1 Q Then going down to paragraph 130 and
2 specifically page 54 of your declaration.

3 A I'm there.

4 Q It shows the modifications that would be
5 made if you combine Weaver and Lee 043; is that
6 right? 053?

7 A Yes, on the right, to show the top and
8 bottom of the electrode.

9 Q If you compare this figure in paragraph 130
10 to Exhibit 9, is this where counsel got the figure
11 from?

12 A I think I've used this figure elsewhere in
13 the declaration, but yes, this is the figure that
14 counsel used.

15 Q Does Claim 10 require that the first
16 auxiliary electrode have a first layer and second
17 layer?

18 A No.

19 Q Would you have used this figure from
20 Ground 2 to illustrate the modification for
21 Ground 4?

22 A No.

23 Q You mentioned that yesterday there was a
24 corrected version of this Exhibit 11; is that right?

25 A Yes.

1 Q Can you please pull that up.

2 A Okay.

3 Q Was this -- does Exhibit 11 have the double
4 layer for the first auxiliary electrode still in it?

5 A Yes.

6 Q Is this an accurate representation of how
7 you would have drawn it if you included it in your
8 report?

9 MR. TONG: Objection. Leading and form.

10 THE WITNESS: No. I would not have used an
11 image where the auxiliary electrode has both a
12 bottom electrode and a top electrode or two parts.
13 I wouldn't have used this figure.

14 BY MR. LIMBACH:

15 Q Now, in this figure, in Exhibit 11, Counsel
16 has drawn a handwritten green line.

17 Do you see that?

18 A Yes.

19 Q That is added structure at the right side of
20 this figure.

21 Do you see that?

22 A Yes.

23 Q What in this figure would correspond to the
24 second electrode -- I'm sorry, the second auxiliary
25 electrode?

1 A A metal that's reddish above additional
2 electrode layer.

3 Q To the side of the light-emitting device?

4 A Yes.

5 Q So what's the green -- handwritten green
6 represent?

7 A The anode of the light-emitting device,
8 material that goes over to the right.

9 Q So the handwritten green is an extension of
10 the layer 406?

11 A That's what I was thinking at the time, yes.

12 Q So if the -- the second auxiliary
13 electrode -- so is the second auxiliary electrode in
14 this drawing created by counsel, electrically
15 connected to the first electrode layer of the LED?

16 A This drawing, the additional second
17 auxiliary electrode that's to the side of the -- to
18 the side of the light-emitting device, is connected
19 to the anode of the light-emitting device.

20 Q So for clarity, the second auxiliary
21 electrode has been added here.

22 Can you please identify with specificity
23 exactly where it is?

24 A Again, I'd need to think about the
25 correctness of this drawing, but I believe it's the

1 orange on the far right side of the image that was
2 added.

3 Q Is that orange an element that is underneath
4 a conductive contact?

5 A Yes.

6 Q That goes up and makes physical contact with
7 the extension of layer 406?

8 A Yes.

9 Q The positioning of this second auxiliary
10 electrode. I don't know even the clarity of this,
11 but do you think it was intended that it also touch
12 what has been hand-drawn in, in red, just to the
13 left of it?

14 A It doesn't need to; it just needs to connect
15 to the light-emitting device.

16 Q Before you talked about how in Lee 149, the
17 second auxiliary electrode was sitting on the lower
18 electrode layer.

19 Do you recall that?

20 A Yes.

21 Q Did you do that with Weaver?

22 A It could be, yes.

23 Q Where would it be if that were the case?

24 MR. LIMBACH: Objection. Form.

25 THE WITNESS: It would -- you take the

1 orange that's on the right, kind of in the middle of
2 the drawing, and just move it up on top of the green
3 line that was added.

4 BY MR. LIMBACH:

5 Q If you did that, would you need the
6 electrical contact that's underneath the green line
7 that was added?

8 A No.

9 Q Would you need the redline that was drawn to
10 the right of what is labeled bus line 430?

11 A No.

12 Q Go back to your declaration and go to
13 page 84, please.

14 A Okay.

15 Q This is Ground 5, where you render an
16 opinion on Claims 10 and 11 based upon Weaver and
17 Bae.

18 Do you see that?

19 A Yes.

20 Q In 196, you have an annotated drawing of the
21 Bae reference?

22 A In paragraph 196, there is an annotated
23 image from figure 4 of Bae.

24 Q Does this figure show a light-emitting
25 device?

1 A **Yes.**

2 Q Can you describe its components or identify
3 the components?

4 A **In light green, first electrode 132; in
5 light blue, organic electroluminescent layer 136;
6 and in green, second electrode 138.**

7 Q What is element 139 highlighted in red?

8 A **I missed the first part of the question.**

9 Q What is element 139 that's been highlighted
10 in red?

11 A **Bae discloses 139 as auxiliary electrodes.**

12 Q Is it your opinion that that teaches the
13 second auxiliary electrode of Claim 10?

14 A **Yes, as I discussed in paragraph 194.**

15 Q Is 139 electrically connected to the layer
16 132?

17 A **Yes.**

18 Q How so?

19 A **It's physically touching.**

20 Q Is that consistent with what you refer to as
21 "sitting on" when you were talking about exhibit --
22 I'm sorry -- your previous ground?

23 A **Yes.**

24 Q And then in paragraph 199, you say:

25 "It would have been obvious to a POSITA to

1 combine the teachings of Weaver and Bae to add a
2 second electrode -- second auxiliary electrode to
3 the side of the OLED 400 of Weaver."

4 Do you see that?

5 **A Yes.**

6 Q But in this section, I don't see an
7 annotated drawing showing that. Is that fair?

8 **A Yes.**

9 Q Yesterday, you were asked about Ground 5,
10 and that led to a demonstrative Exhibit 10.

11 Could you please open Exhibit 10.

12 **A I've got it open.**

13 Q In Exhibit 10, where is the second auxiliary
14 electrode?

15 **A Beyond the right side of the light-emitting
16 device. So, for example, the far right and top
17 orange rectangle.**

18 Q And underneath that is something that's been
19 colored green.

20 Do you see that?

21 **A I missed the first part of the question.**

22 Q Underneath what you just identified as the
23 second auxiliary electrode has been colored green.

24 Do you see that?

25 **A Yes.**

1 Q What is that structure?

2 A **An extension of the anode 406.**

3 Q These annotations are from counsel; right?

4 A **Yes.**

5 Q So to the left of what you just called an
6 extension, there is a light green box with a dark
7 green color in it.

8 Do you see that?

9 A **Yes.**

10 Q What is that?

11 A **A representation of extending material 406**
12 **to underneath the top right orange box.**

13 Q Does the second auxiliary electrode as drawn
14 here, is that sitting on electrode layer 406?

15 A **Yes.**

16 Q Is the second auxiliary electrode as shown
17 here electrically connected to first electrode layer
18 406?

19 A **Yes.**

20 Q What is your understanding of what is drawn
21 beneath auxiliary electrode in this figure and the
22 green box that's underneath it?

23 A **It's a contact or via.**

24 Q Then that goes down to a box that's been
25 highlighted red.

1 Do you see that?

2 A Yes.

3 Q And then to the left of that, Counsel has
4 drawn a red box.

5 Do you see that?

6 A Yes.

7 Q All of the structure that's below the first
8 electrode layer 406, is that required by Claim 10?

9 A No.

10 Q Would you have included that structure had
11 you drawn this and included it in your report?

12 MR. TONG: Objection. Leading.

13 THE WITNESS: I don't believe I would.

14 MR. LIMBACH: I'll like to have you open
15 Exhibit 15 from earlier this morning, the
16 Hekmatshoar reference.

17 BY MR. LIMBACH:

18 Q When you have it open.

19 A I finally found it. Got it.

20 Q If you could go to the second page of this
21 document, page 184, and specifically figure 3B.

22 A I'm there.

23 Q Earlier today, you were asked about the
24 materials that -- strike that.

25 I think a better way to do this, actually --

1 my apologies -- is can you open Exhibit 13? My
2 apologies. Exhibit 13, which is your declaration
3 for the '733 patent.

4 A I have it open.

5 Q And if you could go to paragraph 169.

6 A I'm there.

7 Q And this is figure 3B of the Hekmatshoar
8 reference with a red circle around one of the
9 interconnects that are shown in that figure.

10 Do you see that?

11 A Yes.

12 Q Same with figure 6.

13 Do you see that?

14 A I see the red circle in figure 6B, circling
15 interconnect, yes.

16 Q Earlier today, you were asked about whether
17 Hekmatshoar teaches what material is used for that
18 interconnect that is circled in red.

19 Do you recall that?

20 A Yes.

21 Q And I believe you testified -- correct me if
22 I'm wrong -- that you thought that the material of
23 the interconnect circled in red was the same
24 material as the gate over in the left of the page or
25 the figure.

1 Was that your testimony?

2 A That's what it looked like.

3 Q Does Hekmatshoar instruct you -- strike
4 that.

5 Is it evidenced from these figures alone
6 whether the interconnect circled in red and the gate
7 shown on the left of the diagram are formed in the
8 same layer-forming process?

9 A I don't think you draw that conclusion from
10 the figures alone.

11 Q So does that mean that the interconnect
12 circled in red and the gate to the left couldn't
13 have been formed or could be formed using a
14 different layer deposition step?

15 MR. TONG: Objection. Leading.

16 THE WITNESS: Yes.

17 BY MR. LIMBACH:

18 Q Let me say it this way: Do the material --
19 does the material of interconnect that's circled in
20 red need to be the same material as the gate?

21 MR. TONG: Same objection.

22 THE WITNESS: No. And the material isn't
23 claimed in the claims.

24 MR. LIMBACH: I have nothing further.

25 THE VIDEOGRAPHER: Off the record?

1 MR. TONG: I would like to ask a few
2 questions. I don't have a lot. I think we can
3 probably wrap this up in five to ten minutes.

4 --000--

5 FURTHER EXAMINATION

6 BY MR. TONG:

7 Q Dr. Baker, I'd like to direct your attention
8 again to your declaration for the '509 patent that
9 is Exhibit 1. If you could go back to page 11 with
10 me and let me know when you're there.

11 A I'm there.

12 Q So your testimony today is that you applied
13 both the broader and the narrower construction in
14 your analysis of Ground 1; correct?

15 A That's my testimony today and that's what's
16 in the declaration, yes.

17 Q Okay. Again, Grounds 6 through 10, those
18 apply only to the narrower construction; correct?

19 A Yes. In grounds -- and those grounds, I
20 applied the narrower construction of auxiliary
21 electrode that is supplemental electrode to reduce
22 the total resistance of the pixel structure.

23 Q So in order to make a decision regardless of
24 the construction, the board would only need to look
25 at your analysis of Grounds 1 through 5.

1 Would that be right?

2 MR. LIMBACH: Objection. Form.

3 THE WITNESS: That sounds like something an
4 attorney should answer. I did various grounds of
5 invalidity, and the APJs should look at whatever
6 they think they should look at. I'm not going to
7 tell them what to do.

8 BY MR. TONG:

9 Q And if the board feels that Grounds 6
10 through 10 are redundant, you're certainly not going
11 to tell the APJs that they have to independently
12 rule on Ground 6 through 10; correct?

13 MR. LIMBACH: Objection. Form.

14 THE WITNESS: I'm not going to tell the APJs
15 anything other than the opinions I've offered in my
16 declarations. This sounds like something to do with
17 the law. I've done an analysis demonstrating in
18 claims -- in Grounds 6 through 10 that the -- that
19 the claims of, for example, the '509 patent that I
20 indicated are invalid. And I hope they consider my
21 analysis; but I can't tell them -- I can't force
22 them to. Maybe I'm not understanding what you're
23 asking.

24 BY MR. TONG:

25 Q Is it necessary at all for the APJs to

1 evaluate Grounds 6 through 10 in order to consider
2 both claim constructions that are at issue in this
3 IPR?

4 MR. LIMBACH: Objection. Form.

5 THE WITNESS: I'm missing something. For
6 example, in paragraph 213 of my declaration, which
7 is on page 92, I refer back to my earlier analysis
8 and opinions, and then I provide additional
9 discussion that hopefully makes clear that if
10 something is determined, that there's alternate
11 alternatives to the previous analysis. So I think
12 the board should look at my declaration and not
13 exclude any parts.

14 BY MR. TONG:

15 Q Did you have any concerns with your
16 arguments in Ground 1 such that you felt you needed
17 to address those concerns in Ground 6?

18 A I discuss, for example, in paragraph 218,
19 one consideration.

20 Q And what is that consideration?

21 A Should the patent owner argue or the board
22 conclude that Weaver does not disclose an auxiliary
23 electrode under the narrow construction that Weaver,
24 in combination with Gupta or Han, does.

25 Q So you were concerned that Weaver may not

1 disclose the auxiliary electrode under the narrow
2 construction? And again, my question -- strike
3 that.

4 So you were concerned that Weaver alone may
5 not necessarily disclose the auxiliary electrode
6 under the narrow construction; correct?

7 MR. LIMBACH: Objection. Form.

8 THE WITNESS: I'm not concerned. Weaver
9 teaches what's in the '509 patent, period. What I
10 was concerned with was some arguments that are
11 perhaps not reasonable that Weaver didn't, and
12 that's what I was trying to address in this grounds.

13 BY MR. TONG:

14 Q But in Ground 1, you did address the narrow
15 construction of auxiliary electrode; correct?

16 A Yes. I was asked to address both the narrow
17 and the broad constructions or the more reasonable
18 construction.

19 Q About how many hours did you spend in
20 preparing your declaration regarding the '509
21 patent?

22 A I have no idea. I could guess. Somewhere
23 between 50 and a hundred. But if it was more than a
24 hundred, it is what it is.

25 Q And did you spend a similar amount of time

1 working on your declaration for the '733 patent?

2 A I don't remember. I mean, sitting here, I
3 would assume I didn't because it's the same
4 specification as the '509; but I honestly don't
5 remember.

6 Q Would it be more accurate to say that your
7 work on the '733 patent would have been on the order
8 of 10 to 50 hours?

9 MR. LIMBACH: Objection. Form.

10 THE WITNESS: Maybe.

11 BY MR. TONG:

12 Q As we sit here today, what is your best
13 estimate of the combined time that you spent
14 preparing the declarations of the '509 and '733
15 patents?

16 A 115 hours.

17 Q And then I believe yesterday, you testified
18 that you spent about eight hours preparing for
19 yesterday's deposition; right?

20 A I don't recall testifying that, but I
21 prepared for two days before these two days of
22 depositions.

23 Q About how many hours would a POSITA need to
24 spend with the prior art in order to know how to
25 draw the proposed modifications that you had

1 described in your declarations?

2 MR. LIMBACH: Objection. Form.

3 THE WITNESS: There's an underlying
4 assumption in that question that those drawings are
5 needed, and obviously I don't think they are; but it
6 wouldn't take much time if -- while you were
7 drafting a declaration, to include them. But again,
8 I don't think they're needed. If I did, I would
9 have put them in my declaration.

10 BY MR. TONG:

11 Q Do you think a POSITA would need more or
12 less than eight hours of reviewing the prior art?

13 MR. LIMBACH: Objection. Form.

14 THE WITNESS: I mean, to put the figures
15 into the declaration?

16 BY MR. TONG:

17 Q If you want some clarity on your question:
18 Do you think a POSITA would need more or less than
19 eight hours of reviewing the prior art in order to
20 be able to draw a system diagram of the proposed
21 modifications that you had described?

22 MR. LIMBACH: Objection. Form.

23 THE WITNESS: If they were needed -- and
24 they're not -- it would take well under eight hours.

25 MR. TONG: Okay. Pass the witness.

1 MR. LIMBACH: So I believe this concludes --
2 we can go off the record; but this concludes the two
3 depositions for the 01133 and 01134 IPRs.

4 THE VIDEOGRAPHER: The time is 10:45 a.m.,
5 and we're off the record.

6 THE COURT REPORTER: Mr. Limbach, do you
7 need a rough draft?

8 MR. LIMBACH: Sure.

9 THE COURT REPORTER: Okay. Mr. Tong and
10 Cummings, do you need a rough draft as well?

11 MR. TONG: Yes, please.

12 (Time noted: 10:45 a.m. PT/12:45 p.m. CT)

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1 CERTIFICATE OF CERTIFIED SHORTHAND REPORTER

2 The undersigned Certified Shorthand Reporter and
3 Deposition Notary Public of the States of California,
4 Washington and Nevada does hereby certify:

5 That the foregoing deposition was taken before me
6 remotely at the time therein set forth, at which time the
7 witness was duly sworn by me;

8 That the testimony of the witness and all
9 objections made at the time of the deposition were
10 recorded stenographically by me and were thereafter
11 transcribed, said transcript being a true and correct copy
12 of the proceedings thereof.

13 I further certify that I am neither counsel for
14 nor related to any party to said action, nor in any way
15 interested in the outcome thereof.

16 Further, that if the foregoing pertains to the
17 original transcript of a deposition in a federal case,
18 before completion of the proceedings, review of the
19 transcript was not requested/offered on the record.

20 In witness whereof, I have subscribed my name,
21 this date: April 9, 2025

22

23



24

Cheryl Haab Scott, RDR, CRR, CCRR
CSR No. 13600/WA CSR No. 3499/NV CCR No. 1003

25

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