



Planet Depos®
We Make It *Happen™*

Transcript of Dr. Bozena B. Michniak-Kohn

Date: April 17, 2025

Case: Dr. Squatch, LLC -v- The Proctor and Gamble Company (PTAB)

Planet Depos

Phone: 888.433.3767 | **Email:** transcripts@planetdepos.com

www.planetdepos.com

Michigan #8598 | Nevada #089F | New Mexico #566

1 UNITED STATES PATENT AND TRADEMARK OFFICE

2
3 BEFORE THE PATENT TRIAL AND APPEAL BOARD
4

5
6 DR. SQUATCH, LLC,

7 Petitioner,

8 V.

9 THE PROCTOR & GAMBLE COMPANY,

10 Patent Owner.
11

12
13 Deposition of DR. BOZENA B. MICHNIAK-KOHN

14 Conducted Virtually

15 Thursday, April 17, 2025

16 9:08 a.m. EST
17

18
19
20 Job No.: 579888

21 Pages: 1 - 135

22 Reported By: Karen Klerekoper, CSR-4250, RPR

1 Deposition of DR. BOZENA B. MICHNIAK-KOHN,
2 conducted virtually:
3
4
5
6
7

8 Pursuant to Notice, before Karen Klerekoper,
9 Notary Public in and for the State of
10 Massachusetts.
11
12
13
14
15
16
17
18
19
20
21
22

1

A P P E A R A N C E S

2

3

ON BEHALF OF THE PETITIONER:

4

JUSTIN OLIVER, ESQUIRE

5

MANNY CAIXEIRO, ESQUIRE

6

VENABLE LLP

7

600 Massachusetts Avenue, NW

8

Washington, DC 20001

9

202.344.4000

10

11

ON BEHALF OF THE PATENT OWNER:

12

MARLEE HARTENSTEIN, ESQUIRE

13

ANDREA JEFFRIES, ESQUIRE

14

JONES DAY

15

500 Grant Street

16

Suite 4500

17

Pittsburgh, Pennsylvania 15219

18

412.391.3939

19

20

ALSO PRESENT:

21

DOCUMENT TECHNICAN LEE UTTERBACK, PLANET DEPOS

22

ERIKA GEORGIOU, GENERAL COUNSEL FOR DR. SQUATCH

INDEX

WITNESS:

PAGE:

DR. BOZENA B. MICHNIAK-KOHN:

EXAMINATION BY MS. HARTENSTEIN:

5

EXHIBIT:

PAGE:

(Exhibits attached to transcript.)

Exhibit 1	'999 declaration	14
Exhibit 2	'915 declaration	15
Exhibit 3	'647 declaration	17
Exhibit 4	'706 declaration	18
Exhibit 5	Lesniak reference	58
Exhibit 6	Phinney reference	81
Exhibit 7	Bianchi '518 reference	92
Exhibit 8	Bianchi '254 reference	103
Exhibit 9	affidavit Frank-White/Native website	111
Exhibit 10	affidavit Frank-White/Native website	111
Exhibit 11	Lamb reference	123
Exhibit 12	Stoia reference	127

1 P R O C E E D I N G S

2 (Oath stipulation read and agreed by counsel
3 and witness.)

4 DR. BOZENA B. MICHNIAK-KOHN, having been duly
5 sworn testified as follows:

6 EXAMINATION

7 BY MS. HARTENSTEIN:

8 Q Good morning, Dr. Michniak-Kohn. Is that
9 how you pronounce your name?

10 A Yes, very good pronunciation. Thank you
11 very much. Yeah. The only correction I have is
12 Bo is really my nickname. The full first name is
13 spelled B-O-Z-E-N-A. But I go by Bo.

14 Q And do you go by both your last names,
15 Dr. Michniak-Kohn, or do you just go by Dr. Kohn?

16 A I go by both.

17 Q I just wanted to make sure I was calling
18 you the right name.

19 My name is Marlee Hartenstein. I am an
20 attorney for Jones Day, and I'm here today on
21 behalf the patent owner Proctor & Gamble, P&G.

22 I know we kind of already went through

1 this, but can you just state your name for the
2 record, your full name?

3 A So it's Dr. Bozena Michniak-Kohn.

4 Q And you are currently in New Jersey,
5 right?

6 A Yes, I reside in Piscataway, New Jersey.

7 Q Is that where you are now?

8 A Well, technically, in the town next door,
9 which is New Brunswick, New Jersey.

10 Q And Counsel is in the room with you,
11 right?

12 A Yes.

13 MR. OLIVER: And, Marlee, before -- I'm
14 sorry. Before we get started, I know that the
15 technician indicated that this was going to be
16 recorded for backup purposes, which is fine.

17 Just under the rules, any video or other
18 recordings of this can't be used by the parties or
19 shared with the parties absent the agreement with
20 both sides. I just want to make clear for the
21 record that there is not agreement for retaining
22 any recordings other than for backup purposes for

1 the court reporter of this deposition.

2 I just wanted to make that clear. We can
3 talk about that more at break. I just wanted to
4 make sure it was on the record.

5 MS. HARTENSTEIN: Understood. Thanks.

6 Q So, since I'm not in the room with you, I
7 just wanted to get a visual.

8 Is counsel sitting right next to you at
9 the table?

10 A Mr. Justin Oliver is sitting on my
11 right-hand side here at the table.

12 Q And is he on the same side of the table?

13 A Yes, he is.

14 Q And is there any other people in the room
15 with you right now?

16 A Yes. We have one of the other lawyers
17 that's just come in.

18 Q Got it. And are they also going to be
19 sitting at the table with you?

20 A They will be, and they're facing
21 Mr. Oliver on the other side of the table.

22 Q And do you know the name of that attorney?

1 A How do I pronounce -- if you would like to
2 introduce yourself because I don't want to also
3 mispronounce your attorney.

4 MR. OLIVER: The other attorney in the
5 room is Manny Caixeiro, C-A-I-X-E-I-R-O.

6 Q And you have some documents with you,
7 right?

8 A I was provided some documents, so I have
9 electronic -- clean electronic copies of all of
10 the exhibits, as well as my declarations. And in
11 the room, I have a hard copy of all of the
12 exhibits and the full patents under discussion
13 today and all four declarations in hard copy,
14 clean copies as well, that were just provided to
15 me by counsel.

16 Q And by "exhibits," do you mean the -- all
17 of the exhibits that are in the four IPRs we're
18 discussing today?

19 A Correct.

20 Q And so none of these documents have
21 markings or any other notes on them, correct?

22 A Correct. I only received them morning.

1 There is nothing on them at all.

2 Q Okay. All just clean copies?

3 A Correct.

4 Q And including the ones that you have in
5 electronic form, there is no notes or highlighting
6 on those either?

7 A There are no notes, no highlighting. Pure
8 clean copies.

9 Q So to start, I'm just going to go over a
10 few ground rules, which I suspect you've heard
11 before. But I'm going to be asking you a series
12 of questions, and if you don't understand a
13 question, can you please ask me to clarify it?

14 A I will do.

15 Q And if you don't ask for clarification,
16 can I assume that you understood the question?

17 A Yes, if I answer, correct.

18 Q And during today's deposition, your
19 counsel may object to some of my questions.
20 Unless your counsel specifically instructs you not
21 to answer, do you understand that you should
22 answer my question?

1 A I understand.

2 Q And for the benefit of the court reporter,
3 especially since we are remote, only one of us
4 should speak at any given time. So let's just try
5 not to speak over each other.

6 Does that sound good?

7 A Sounds good.

8 Q And it's also important to avoid nonverbal
9 answers such as nodding or shaking your head.

10 Do you understand that?

11 A I understand.

12 Q And concerning breaks, we can take as many
13 breaks as you'd like. I'm going to try to do one
14 approximately every hour. But if at any other
15 point you need an additional break, will you let
16 me know?

17 A I will.

18 Q And the only exception will be that we
19 can't take a break mid question. So if I ask you
20 a question, you will need to answer it before we
21 take a break. Is that okay?

22 A That's...

1 Q And there are some rules about what you
2 can and cannot discuss with counsel during breaks.

3 So when you come back from a break I'm
4 going to ask you if you discussed the substance of
5 your testimony with counsel, okay?

6 A I understand.

7 Q And any reason why you can't give
8 complete, accurate, truthful testimony today?

9 A No, there is no reason.

10 Q And if you don't remember something and if
11 you're not sure about past facts, please just
12 don't guess.

13 Can you just let me know if you are not
14 sure?

15 A I will.

16 Q Have you ever given sworn testimony prior
17 to today at either a trial or a deposition?

18 A I have.

19 Q And for depositions, how many times have
20 you been deposed?

21 A I don't know how accurate this number is,
22 or precise, but it's around 30 depositions.

1 Q Were those all patent cases?

2 A No, not all of them were patent cases.

3 Q What other cases have you testified in?

4 A There was a series of medical malpractice
5 cases that I also did, many, many years ago.

6 Q And were you serving as an expert in all
7 of these cases?

8 A Yes, I was.

9 Q And for the patent cases that you have
10 testified in, were you representing the patent
11 owner or the patent challenger?

12 A Both.

13 Q Both. Have you ever given any prior
14 opinions or testimony relating to deodorants or
15 antiperspirants?

16 A I believe not.

17 Q And you understand that this deposition
18 pertains to the declarations you have submitted in
19 four IPR proceedings related to four P&G patents,
20 right?

21 A Correct.

22 Q So one of the patents is 11,540,999,

1 right?

2 A Correct.

3 Q And if I call that one the '999 patent,
4 will you know what I'm referring to?

5 A I will.

6 Q The next patent, 10,966,915.

7 And if I call that the '915 patent, will
8 you know what I'm referring to?

9 A I will.

10 Q The next one, 10,905,647, and I'm going to
11 call that the '647 patent. Okay?

12 A That's fine.

13 Q And the last one, 11,497,706, and that is
14 the '706 patent, right?

15 A Correct.

16 Q So let's just start with the '999. I
17 believe this is going to be the first exhibit.
18 It's listed as tab 1, that is the '999
19 declaration. So that will be in the OneDrive but
20 you can also pull up your hard copy if you want.

21 A And you are talking about the '999
22 declaration?

1 Q The '999 declaration, yes.

2 Do you have that in front of you?

3 A Yes, I do.

4 COURT REPORTER: What are you going to
5 mark that? Sorry to interrupt.

6 MS. HARTENSTEIN: Let just mark it as
7 Deposition Exhibit 1.

8 (Marked for identification Exhibit 1, '999
9 declaration.)

10 MS. HARTENSTEIN: They all have their own
11 petitioner exhibit markings in the bottom but some
12 of them have the same number so I think we should
13 just do separate deposition exhibit numbers.

14 Q So do you recognize Exhibit 1 as the
15 declaration you submitted in IPR Number
16 2024-00104?

17 A I do.

18 Q And that relates to the '999 patent,
19 correct?

20 A Correct.

21 Q So if I call that the '999 IPR, will you
22 understand what I'm referring to?

1 A Yes, I will.

2 Q And this declaration, it sets forth your
3 opinions in their entirety containing -- or
4 concerning the validity of the '999 patent, right?

5 A Correct.

6 Q And if you scroll down to page 89, the
7 last page, that's your signature at the end,
8 right?

9 A Yes, it is.

10 Q And you signed that on June 28th, 2024?

11 A Correct.

12 Q I'm going to just run through the other
13 three with the same questions, just so we can kind
14 of get them all in. So let's go to the '915
15 declaration.

16 MS. HARTENSTEIN: That is going to be
17 tab 2 for you, Lee. And we can mark that as
18 Deposition Exhibit 2.

19 (Marked for identification Exhibit 2, '915
20 declaration.)

21 Q So do you have the '915 declaration in
22 front of you?

1 A I do.

2 Q And do you recognize this as the
3 declaration you submitted in IPR Number
4 2024-00105?

5 A Yes.

6 Q And this relates to the '915 patent,
7 correct?

8 A Correct.

9 Q So if I call this the '915 IPR, will you
10 understand what I'm referring to?

11 A Yes.

12 Q And this declaration sets forth your
13 opinions in their entirety concerning the validity
14 of the '915 patent, correct?

15 A Correct.

16 Q And if you go to the bottom of this one, I
17 think that's page 82, is that your signature?

18 A It is.

19 Q And you signed that one also on June 28th,
20 2024, correct?

21 A Correct.

22 MS. HARTENSTEIN: Let's just move on to

1 the next one, the '647 declaration. That will be
2 tab 3 for you, Lee. We can mark that as
3 Deposition Exhibit 3.

4 (Marked for identification Exhibit 3, '647
5 declaration.)

6 Q Do you have the '647 declaration in front
7 of you?

8 A Yes, I do.

9 Q And do you recognize that as the
10 declaration you submitted in IPR 2024-01173?

11 A Correct.

12 Q And this relates to P&G's '647 patent,
13 right?

14 A It does.

15 Q And so if I call this one the '647 IPR,
16 you'll understand what I'm referring to?

17 A Yes.

18 Q And this declaration sets forth your
19 opinions in their entirety concerning the validity
20 of the '647 patent, correct?

21 A Correct.

22 Q And if you go to the last page, that's

1 your signature at the end?

2 A Yes, it is.

3 Q And you signed this one on July 17th,
4 2024?

5 A Correct.

6 MS. HARTENSTEIN: All right. Last one.
7 This is tab 4, Lee, your '706 declaration. And we
8 can mark that as Exhibit 4.

9 (Marked for identification Exhibit 4, '706
10 declaration.)

11 Q And do you have the '706 declaration in
12 front of you?

13 A I do.

14 Q And do you recognize that as the
15 declaration you submitted in IPR Number
16 2024-01174?

17 A Yes.

18 Q And this one relates to the '706 patent,
19 right?

20 A It does.

21 Q Okay. So if I call that one the '706 IPR,
22 do you know what I'm referring to?

1 A Yes.

2 Q And this declaration sets forth your
3 opinions in their entirety concerning the validity
4 of the '706 patent, correct?

5 A Correct.

6 Q And if you scroll down to the bottom, I
7 think page 111, that's your signature?

8 A It is.

9 Q And you signed that one on July 17th,
10 2024?

11 A Correct.

12 Q Have you reviewed your declarations since
13 you've signed them?

14 A Yes, I have.

15 Q And are you aware of any mistakes in any
16 of the declarations?

17 A Not at the present time.

18 Q No inaccuracies or misrepresentations?

19 A None that I am aware of.

20 Q So you don't see anything sitting here
21 that needs to being changed or updated in any of
22 the four declarations?

1 A Nothing needs to be changed.

2 Q So let's go back to your declaration in
3 the '999 IPR, that's Deposition Exhibit 1.
4 Starting -- let's start at paragraph 11.

5 Can you tell me when you're there.

6 A I'm there.

7 Q So in paragraph 11, you identified the
8 materials that you have reviewed in forming your
9 opinions, right?

10 A Yes.

11 Q And is that a complete list?

12 A That is a complete list.

13 Q And you have similar lists of your
14 materials reviewed in the other three
15 declarations, right?

16 A I do.

17 Q If you would like to review them, I think
18 they're paragraph 11 in all of them.

19 But are those lists complete as well?

20 A They are complete.

21 Q And were these materials provided to you
22 from Dr. Squatch's counsel?

1 A Some of them.

2 Q Which ones? We can start with the '999,
3 paragraph 11, if you want to go through those.

4 A So I'm starting with the 1001. The '999
5 patent was provided. 1003 was provided. 1004,
6 1005, 1006 and 1007, 1008, 1009, 1010, 1011, 1012.

7 Q Maybe it might -- would you -- can you let
8 me know which exhibits you found yourself? Maybe
9 that might be a little faster.

10 A Well, 1013 that I'm getting to right now
11 is a book that I have also on my shelf. And
12 then -- let me just look. The 1036, the
13 Multifunctional Cosmetics book, I believe I have
14 on my shelf. The Handbook of Cosmetic Science and
15 Technology, I'm not sure whether I have the
16 2- -- 2009 edition, but I have that on my shelf.

17 Q So for -- let's go back to the prior art
18 that you rely on. That was, in this paragraph,
19 1003, 1004, 1006, that's Lesniak, Phinney, Bianchi
20 15188, correct?

21 A Could you repeat those numbers again?

22 Q Sorry. Exhibit 1003 in this, that's

1 Lesniak, correct?

2 A Correct.

3 Q And that was provided to you by counsel?

4 A Yes.

5 Q And Exhibit 1004, that was Phinney,
6 correct?

7 A Correct.

8 Q And that was provided to you by counsel?

9 A Yes.

10 Q And 1006, Bianchi, '518, that was provided
11 to you by counsel?

12 A It was.

13 Q And 1007, the Native reference, was
14 provided to you by counsel?

15 A Yes.

16 Q And 1008, the Bianchi, '254, also from
17 counsel, correct?

18 A Correct.

19 Q And then the Easy Homemade 1009, that's
20 from counsel?

21 A Yes.

22 Q What about 1044, that is the Millet

1 reference.

2 Was that provided to you by counsel?

3 A Millet, yes.

4 Q And did you receive all of these
5 references at once from counsel?

6 A No, not at once, no.

7 Q And do you remember when you received
8 them?

9 A At this stage sitting here, no, I don't
10 remember the dates and when.

11 Q Shortly after you were retained, do you
12 think?

13 A Well, the main patents I received probably
14 earlier on, and some of the others. But as far as
15 remembering dates at this stage, I don't recall.

16 Q Do you consider any other materials in
17 forming your opinions that aren't listed in the
18 materials reviewed sections of your declarations?

19 A I obviously was using my own background
20 knowledge and the information I had from -- from a
21 lot of my own work and experience in the past,
22 which obviously counts as important information

1 too.

2 Q So aside from your experience in the field
3 and then the materials that are listed in the
4 Materials Reviewed section, correct?

5 A Correct.

6 Q All right. If we look at -- let's go up
7 to paragraph 11 -- or paragraph 10 now -- of this
8 '999 declaration.

9 Do you see that?

10 A I'm there.

11 Q This looks at the different invalidity
12 grounds you are opining on for the '999 patent,
13 right?

14 A Yes.

15 Q And then you have similar listing of the
16 grounds in the other declarations, correct?

17 A I do.

18 Q Did you work with counsel for Dr. Squatch
19 to form these grounds?

20 A I discussed with counsel, obviously, the
21 science and the -- we had discussions about all
22 this work. And I did my -- I provided my opinions

1 on everything I was reading.

2 Q So you reviewed the references and then
3 did you decide together what combinations to make?

4 A We discussed combinations and how a POSA
5 would approach this work, yes.

6 Q Did they provide these combinations to you
7 and then you discussed them with them?

8 A I was not told necessarily that that
9 combination and I had to read it. I read
10 references. We had discussions, numerous
11 discussions, about the meaning and the background
12 of each reference, and how a person of ordinary
13 skill in the art at the time would go about
14 looking at the science and looking at the
15 references and putting everything together.

16 Q Understood. So the grounds that we're
17 looking at in paragraph 10 here, for example,
18 those combinations, counsel provided those grounds
19 to you, correct?

20 MR. OLIVER: Objection, foundation.

21 A I basically was provided with various
22 references. I read them. I made -- I made the

1 appropriate conclusions and we had discussions
2 with counsel about them.

3 Q Understood. So they gave you the proposed
4 combinations and then you discussed afterwards
5 whether you agreed with them?

6 A They did not give me proposed
7 combinations. They gave me references to look at
8 and to read independently.

9 Q Understood. So is this generally the same
10 process for the grounds in the other three
11 declarations as well?

12 A That is correct.

13 Q And have you seen any of the prior art
14 references that you relied on prior to these IPRs?

15 A Some of them I have.

16 Q Which ones -- I'm sorry, scratch that.

17 So did you come up with these combinations
18 yourself then?

19 A We had discussions on the science and the
20 references, and the teachings within the
21 references, and after the discussions, as a group
22 we were able to make -- make conclusions. And

1 after those discussions, I was able to say that a
2 POSA at that time would have been able to see what
3 these certain references hold the POSA, and also
4 back it up with my own knowledge and experience
5 from the past.

6 Q Did you come up with any of these
7 combinations on your own and give them to
8 Squatch's counsel?

9 A We discussed everything. It's -- it's
10 hard to say who -- we were discussing together all
11 these combinations or possible combinations.

12 Q Understood. When were you first contacted
13 to work on this matter?

14 A I believe it's -- it's exactly a year ago,
15 probably. I think in April of 2024.

16 Q And were you retained by counsel for
17 Squatch?

18 A I was.

19 Q And when were you retained again?

20 A I believe it was April 2024.

21 Q And when did you receive the references
22 that we had already discussed that you received

1 from counsel? Was that after April of 2024?

2 A Yes, obviously. Yeah.

3 Q And when did you first discuss the
4 combinations?

5 A I have no -- I -- I can't tell you, sorry.
6 I wouldn't remember a date, and -- and it was part
7 of discussions.

8 Q Would you say shortly after you were
9 retained in maybe April 2024?

10 A I'm sorry, I don't -- it wasn't immediate.
11 I had to read a lot of materials, so it wasn't
12 immediately after. But we had a lot of
13 discussions about all the materials and other
14 materials, so...

15 Q Can you give an estimate of -- your best
16 estimate of when you first discussed these
17 combinations?

18 A I think sadly not. Obviously after April
19 of 2024, but exactly when? Sometime between that
20 date and the date that the declaration came
21 together.

22 Q So sometime between April 2024 and about

1 June 2024? Would that be accurate?

2 A That would be a fair estimate.

3 Q You think maybe May 2024?

4 A Excuse me?

5 Q Do you think maybe it was May 2024 when
6 you first discussed the combinations?

7 A Possibly.

8 Q Do you have invoices that -- that show
9 when you did what work?

10 A I have copies of invoices, but they don't
11 show absolute detail of what was discussed.

12 Q Have you ever been a witness for
13 Dr. Squatch before?

14 A No, I have not.

15 Q Have you ever consulted for Dr. Squatch?

16 A I have not.

17 Q And did you speak with anyone besides
18 attorneys to prepare the opinions that are
19 expressed in your declarations?

20 A No, I did not speak with anyone else.

21 Q And how many hours have you spent working
22 on the four declarations to date, would you guess?

1 A I can't even guess because I don't
2 remember.

3 Q Could you give me an estimate? Do you
4 think over 20 hours?

5 A I don't remember.

6 Q Do you think less than that?

7 A I don't know. Honestly, I don't remember.

8 Q And how many hours -- you don't remember
9 how many hours you spent working on this case?

10 A Off the top of my head, no.

11 Q And you can't give me a ballpark estimate?

12 A Well, we can take a break, and I can look
13 at my invoices, if you would like me to. But off
14 the top of my head, I can't give you a number.

15 Q Would you think it's more than 50 hours?

16 A I honestly don't know.

17 Q If you want to take a look at a break and
18 let me know, that would be great.

19 So what did you do to prepare for your
20 deposition today?

21 A I did a lot of reading.

22 Q Did you review documents?

1 A Of course.

2 Q Your declarations?

3 A Yes, I did.

4 Q The patents?

5 A Correct.

6 Q The exhibits -- all the other exhibits
7 that were in the IPRs?

8 A I did.

9 Q Any other documents?

10 A Not that I'm aware of.

11 Q And did you meet with counsel to prepare
12 for this deposition?

13 A Yes, I did.

14 Q Which counsel?

15 A Could you clarify? What do you mean by
16 which counsel?

17 Q Sorry. Who did you meet with?

18 A Oh, who did I meet with. I met with
19 Dr. -- Justin Oliver. Manny -- I'm sorry, I --
20 I -- my apologies.

21 And with Joshua -- and I've forgotten his
22 last name as well -- Calabro. Am I pronouncing it

1 correctly? Calabro.

2 Q I also struggle with Manny's last name,
3 I'm sorry.

4 So apart from lawyers, did you meet with
5 anyone else?

6 A No, I did not.

7 Q And when did you meet with counsel to
8 prepare for this?

9 A I met with counsel three times via Zoom
10 and once in person.

11 Q And was that all -- when -- when did you
12 meet with counsel?

13 A Again, the dates, I don't recall. I do
14 remember that the in-person meeting was yesterday.

15 Q And were your other calls this month as
16 well?

17 A They were.

18 Q And how long were each of those calls? An
19 estimate is fine.

20 A Again, I don't remember the hours off --
21 off the top of my head.

22 Q Would you say an hour-long call? Does

1 that sound right?

2 A I think it was longer than an hour.

3 Q Two hours, do you think?

4 A Maybe.

5 Q And then your in-person meeting yesterday,
6 was that an all day meeting?

7 A Yes, it was.

8 Q So do you still have your '999 declaration
9 in front of you?

10 A Yes, I do.

11 Q And that is Deposition Exhibit 1 again,
12 for the record.

13 Let's go to paragraph 2 of your
14 declaration.

15 Do you see that?

16 A I'm now there. I see it.

17 Q And you submitted your CV as an exhibit in
18 the '999 IPR, correct?

19 A I did.

20 Q And also the other three IPRs?

21 A I did.

22 Q And was your CV accurate and complete at

1 the time that you signed your declarations?

2 A It was complete as of the date on the CV.

3 Q So are there updates to your CV since then
4 that I should be aware of?

5 A There are always updates to my CV because
6 papers get published, abstracts get sent, students
7 get added, things happen obviously in my regular
8 work. So there are -- there are changes.
9 Minimal, but there are some changes.

10 Q Any changes as it relates to deodorants or
11 antiperspirants?

12 A No.

13 Q So I'm just going to walk through some of
14 your background using your discussion in the '999
15 declaration here.

16 Can we here agree that your background and
17 qualifications are the same across all four IPRs?

18 A Yes, they are.

19 Q So starting at paragraph 2, you say you're
20 an expert in the field of formulating compositions
21 for topical application, right?

22 A Yes.

1 Q And have you yourself formulated a
2 deodorant before?

3 A I have worked with deodorants and
4 antiperspirants, but I haven't formulated a
5 deodorant.

6 Q And what about antiperspirants? Have you
7 formulated an antiperspirant before?

8 A I have made antiperspirant and deodorant
9 solutions but not -- they weren't complicated
10 formulations.

11 Q Can you tell me what the ingredients were
12 in that deodorant formulation?

13 A So my Ph.D. was on antiperspirants, and a
14 lot of my work with companies is also on
15 deodorants and antiperspirants.

16 Some things were antimicrobial deodorants
17 that we've tested, and my Ph.D. was on
18 aluminum-containing antiperspirants.

19 Q You said that was deodorant and
20 antiperspirant solutions, correct?

21 A Correct.

22 Q So that wasn't formulating a deodorant

1 stick, right?

2 A I have not formulated a deodorant stick,
3 no.

4 Q And that was -- and have you formulated an
5 antiperspirant stick?

6 A Not a stick, no.

7 Q And for these deodorant and antiperspirant
8 solutions, did any of them contain aluminum?

9 A Yes, they did.

10 Q Did they all contain aluminum?

11 A No.

12 Q So the last sentence of paragraph 2, that
13 says your past work including formulation and
14 investigations of mechanisms of action of
15 antiperspirants and deodorants, right? Is that
16 what...

17 A That's what it says, yes.

18 Q And so what kind of work was that?

19 A Well, it includes my Ph.D., which
20 obviously is public information. And also work
21 that we do with companies for testing
22 antiperspirants and deodorants. The mechanisms of

1 action probably refers more to what I did for my
2 Ph.D.

3 Q And so the work that you do with companies
4 for testing antiperspirants and deodorants,
5 what -- what companies did you work for?

6 A That's confidential information, as far as
7 I'm aware. I'm not allowed to disclose.

8 Q And you said that it involved testing
9 antiperspirants and deodorants?

10 A Various tests and also investigating
11 mechanisms of action that paragraph 2 sentence
12 talks about.

13 Q And did that work include consumer
14 testing?

15 A That work did not involve consumer
16 testing.

17 Q Have you ever conducted consumer testing
18 as it relates to deodorants or antiperspirants?

19 A Yes, I have.

20 Q Can you tell me about it?

21 A Yes. Back when I was a Ph.D. student as
22 part of my doctoral thesis, that was back in

1 England, I worked -- I did some consumer testing
2 at Beecham Pharmaceuticals in Leatherhead --
3 sorry, in England -- with ladies that would come
4 in and would have various formulations that I was
5 investigating in my lab as well put on their
6 backs.

7 And we were checking reaction on the skin.
8 We were checking perspiration amounts, et cetera,
9 et cetera. And I was involved with that work
10 obviously with a lead from a scientist from the
11 company.

12 Q Okay. And you said this was in relation
13 to your Ph.D., correct?

14 A Correct.

15 Q Approximately, what year was that?

16 A I received my Ph.D. in 1980.

17 Q Okay. So the consumer testing that you
18 did was prior to 1980?

19 A Yes, it was.

20 Q Okay. If we go to paragraph 26 in your
21 '999 declaration, can you let me know when you're
22 there.

1 A I'm there.

2 Q So that is -- you included a definition
3 of -- of POSA in your declaration, right?

4 A Correct.

5 Q And you have written that the definition
6 is:

7 The level of ordinary skill encompassed a
8 person with at least a bachelor's degree in
9 chemistry, pharmacy/pharmaceutical sciences,
10 chemical engineering, material science or a
11 comparable field with two to three years'
12 experience in formulating cosmetics,
13 pharmaceuticals or other comparable products or
14 similarly relevant industry experience with
15 relevant experience substituting for education and
16 vice versa.

17 Is that correct?

18 A That is correct.

19 Q And this is the same definition of a POSA
20 that you used in the other three IPRs as well,
21 right?

22 A Yes.

1 Q And did you fit this definition as of June
2 2017?

3 A Yes, I did, and exceeded it.

4 Q And did you come up with this definition?

5 A In discussion with counsel, yes.

6 Q So one of the references that you rely on
7 is Lesniak, right?

8 A Correct.

9 Q Would you consider the inventors of the
10 compositions described in Lesniak to be POSAs?

11 A I don't know the exact background of the
12 inventors of Lesniak.

13 Q Do you have any reason to believe that the
14 inventors in Lesniak were not POSAs?

15 A No.

16 Q And would you consider the inventors of
17 the Phinney reference to be POSAs?

18 A Same answer: I didn't look back at their
19 particular CVs to make a comment, but I assume
20 that they probably would be.

21 Q And how about James Bianchi, one of the
22 inventors on both of your Bianchi references that

1 you rely on, would you consider him a POSA?

2 A Again, I don't know his background.

3 Q Do you have any reason to believe that he
4 wouldn't be a POSA?

5 A Not -- not at the present time.

6 Q Next, I would like to talk through this
7 section that you call your Technical Introduction,
8 which starts at paragraph 32, I believe.

9 Do you see that?

10 A I'm there right now.

11 Q And so again, I'm going to refer to the
12 '999 declaration, but I understand that the
13 substance of the technology background is the same
14 across all four IPRs, right?

15 A Correct.

16 Q Okay. And all the information in these
17 background sections, is it your opinion that this
18 was all known before the P&G patents in these
19 IPRs?

20 A That is correct.

21 Q So let's start at paragraph 34.

22 There you discuss how deodorant sticks

1 were first introduced in the 1950s, correct?

2 A Yes.

3 Q And at first, these sticks were not
4 anhydrous, right?

5 A That is correct.

6 Q They were glycol gels containing water?

7 A Correct.

8 Q What gave these glycol gel sticks their
9 structure?

10 A They were gels in the first place using
11 glycol. And gels have a certain viscosity in a
12 three-dimensional structure, so that provided that
13 structurant in those early gels.

14 Q Would you use something like sodium
15 stearate to stabilize those glycol gels?

16 A I don't recall at this stage what the old
17 formulas were.

18 Q In these glycol gels, would you consider
19 the glycol and water to be the liquid carriers?

20 A Can you repeat the question?

21 Q In the glycol gel sticks, would you
22 consider glycol and water to be a part of the

1 liquid carriers?

2 A I did not analyze what those formulas were
3 so I can't comment.

4 Q And then after that, the anhydrous sticks
5 came on the scene, right?

6 A Correct.

7 Q Do you know when those started gaining
8 popularity?

9 A Again, I don't remember the exact year
10 when they -- when they came in and were very
11 popular.

12 Q And then in this next section you discuss
13 a few different ingredient categories of these
14 anhydrous sticks, right?

15 A Yes.

16 Q Starting with carrier oils?

17 A Correct.

18 Q And you give you a few examples there.

19 So silicones are liquid carriers, right?

20 A Yes, they are.

21 Q And glycerol esters can be a liquid
22 carrier, right?

1 A Yes.

2 Q And triglycerides are another form of
3 liquid carrier, right?

4 A Correct.

5 Q Any other types of liquid carriers?

6 A Not that I remember off the top of my
7 head, but there may be some others.

8 Q So those are the, kind of, three main
9 buckets?

10 A Yes.

11 Q And depending on what liquid carrier you
12 used, the sticks may have different physical
13 properties, right?

14 A Correct.

15 Q All right. So, next you have
16 structurants.

17 You say in paragraph 39 that structurants
18 solidify the carrier oil, right?

19 A Yes.

20 Q And you give some examples of
21 structurants?

22 A I believe I do.

1 Q So waxes can be structurants, right?

2 A They can.

3 Q And you say organic solids, right?

4 A Correct.

5 Q Modified silicon solids?

6 A Correct.

7 Q And you said crystalline or other
8 gellants, right?

9 A Correct.

10 Q What's an example of that?

11 A Any other component that would give an
12 increased viscosity and structure to the gel.

13 Q Would sodium stearate be one of those?

14 A Stearates, I believe, would -- would
15 increase the structure, yes.

16 Q And long chain fatty alcohols can be
17 structurants too, right?

18 A And I mention that, yes.

19 Q And that's like stearyl alcohol?

20 A Correct.

21 Q And you also list arrowroot powder here,
22 right?

1 A I do.

2 Q Are there any other structurants not
3 listed here that you're aware of?

4 A These were the popular ones.

5 Q Okay. And it's your opinion that the
6 structurant mixed with the liquid carrier is what
7 causes the stick to have their particular
8 properties, right?

9 A Well, from their name, structurants gives
10 structure to the solid and solidify it, in other
11 words, to form the stick and give the appropriate
12 viscosity and hardness to the stick.

13 Q So the combination of the structurant and
14 the liquid carriers gives the stick an appropriate
15 hardness?

16 A Yes, the whole -- plus the whole
17 formulation of this -- that forms the stick. But
18 these are the essential combination that result in
19 the appropriate viscosity and hardness of the
20 stick.

21 MS. HARTENSTEIN: I think we've been going
22 just about an hour. So I'm at a pretty good place

1 to stop if you guys want to take a break. Maybe
2 five minutes, just --

3 THE WITNESS: Sounds fine.

4 MS. HARTENSTEIN: All right.

5 (Off the record.)

6 MR. OLIVER: Back on the record. Marlee,
7 just an FYI. We have somebody who might be coming
8 up from the hotel to adjust the temperature in the
9 room, so I might need to interrupt when someone
10 comes in to do that. So just a forewarning.

11 MS. HARTENSTEIN: Understand.

12 BY MS. HARTENSTEIN:

13 Q So just a few cleanup items from what we
14 discussed before.

15 You said that you were retained sometime
16 in April 2024, right?

17 A Correct.

18 Q And you didn't have an exact date, right?

19 A Not that I remember.

20 Q And was there anything that you discussed
21 during the break that helped refresh your
22 recollection as to when that was?

1 A No, I did not discuss anything apart from
2 how hot the room was.

3 Q Understood.

4 And so -- and you said that you weren't
5 quite sure when you first discussed the
6 combinations with Squatch, correct?

7 A Correct.

8 Q It was sometime after you were retained?

9 A Obviously, yes.

10 Q And maybe in May 2024?

11 A Perhaps.

12 Q And was there anything that you looked at
13 over the break that helped you refresh your
14 recollection as to when those discussions
15 occurred?

16 A I don't believe I have anything that would
17 give you exact dates right now with me.

18 Q And your best estimate would be May 2024?

19 A Probably that's not a bad estimate, yes.

20 In between engagements and then the first
21 declaration, sometime in that time frame.

22 Q In May?

1 A Correct. I mean...

2 Q And I think you said that you also
3 received the references maybe in May 2024, right?

4 A Again, I don't recall the exact dates.

5 Q So you received the references first and
6 then you reviewed them on your own and then you
7 discussed the combinations with counsel?

8 A There were a lot of discussions
9 and -- and, again, I don't remember what papers I
10 received first. I know I received the patents
11 first, but the papers and the discussions, how
12 that progressed, I haven't -- I don't have a
13 recollection on the exact process. Apart from
14 that we had a lot of meetings, a lot of
15 discussions. I was doing a lot of reading.

16 Q Understood.

17 So you could have discussed these
18 references after May then, right?

19 A Can you clarify the question?

20 Q I'm trying to figure out when you first
21 reached your opinions on these combinations.

22 And so was that in May 2024?

1 A Again, I don't recall the exact month, but
2 again, between the beginning of the writing of the
3 declaration and -- during those, I also had
4 discussions, so May is as good a guess as I can
5 make.

6 Q So is it possible that you first discussed
7 these combinations with counsel after May 2024?

8 A Our discussions continued about all of the
9 references, but as far as the -- you know, when
10 any combination was discussed, I don't recall the
11 exact date.

12 Q I'm not asking for an exact date. I just
13 would like to know when you first discussed the
14 combinations that you're relying on.

15 So I'm gleaning that that is in May 2024,
16 it seems?

17 A May would be a good -- good choice of a
18 month, probably.

19 Q Okay. Well, I would appreciate if, you
20 know, over the next break if there is anything you
21 can look at to help get a more definitive answer
22 to that, that would be helpful.

1 A Unfortunately, I don't have records of
2 conversations and what was discussed. I'm sorry,
3 but that kind of detail, I -- we did not take
4 minutes of meetings.

5 Q I understand. I'm not looking for that
6 type of detail. I mean, I think you haven't quite
7 even given me the date of when you were officially
8 retained in April of 2024, so even that date, I
9 would think, that's probably on an engagement
10 letter maybe?

11 A Well, if you wait a minute, I can --

12 Q You don't need do that right now, but on a
13 break, that would be great -- more definitive
14 answers.

15 A I can look at the engagement letter and
16 give you the exact date of engagement letter if --
17 if...

18 Q Let's go back to the '999 declaration,
19 which was Exhibit 1 to the deposition.

20 Do you have that in front of you?

21 A I do.

22 Q So we were talking about different

1 ingredients in the -- in these anhydrous sticks,
2 correct?

3 A Correct.

4 Q So we talked about the carrier oils and
5 the structurants.

6 Next I would like to go to the
7 antimicrobials, which is in paragraph 43.

8 A I'm there.

9 Q So you say that there were numerous
10 antimicrobials that were known, right?

11 A I do.

12 Q And can you quantify that? By numerous,
13 what do you mean?

14 A Well, there are a lot of compounds that
15 have antimicrobial topical action.

16 Q So numerous indicates a large number?

17 A A fairly large number, yes, some of them
18 not necessarily used in deodorants and
19 antiperspirants, but there are numerous
20 antimicrobials that are known also for other uses
21 to treat the skin.

22 Q And you give some examples of

1 antimicrobials, right?

2 A I do.

3 Q Baking soda is one, right?

4 A Yes, sodium bicarbonate.

5 Q And magnesium hydroxide?

6 A Correct.

7 Q What about zinc oxide?

8 A And also zinc oxide.

9 Q Zinc oxide is a antimicrobial?

10 A Well, zinc oxide reduces -- zinc oxide
11 generally is an astringent. It reduces the
12 wetness and promotes dryness in the area, and
13 thereby drying out an area, decreases the number
14 of microbes that are able to proliferate in that
15 area.

16 Q Can you name some other antimicrobials
17 that could be used in deodorant?

18 A We have whole -- lots of information in
19 various patents of what antimicrobials can be
20 used. Do you want me to go and look for these?

21 Q Well, do you just have any other examples
22 off the top of your head besides baking soda,

1 magnesium hydroxide, and zinc oxide that can be an
2 antimicrobial in a deodorant?

3 A Well, if we look at the '999 patent,
4 column 6 just as example, under Section C where
5 they talk about antimicrobials, we can see -- I'm
6 just picking various things -- calcium carbonate,
7 thymol, they also mention other salts of
8 magnesium, the carbonate, calcium carbonate,
9 salicylaldehyde, usanol (as said) and dimethyl
10 oxalate citric...

11 There are other antimicrobials that are
12 known.

13 Q So, that's a good amount. So there is a
14 lot of antimicrobials that can be used in
15 deodorants?

16 A There are a selection of compounds, yes,
17 that could potentially be used and some that are
18 more commonly used in deodorants.

19 Q Let's go next to the hardness section.
20 Let's see... I believe that starts at paragraph
21 44.

22 Do you see that?

1 A I do, and correct.

2 Q And then the next paragraph, paragraph 45,
3 you are citing the two Bianchi references there,
4 right? That's what Exhibit 1006 and Exhibit 1008
5 are?

6 A Let me just... yes, they are the two
7 Bianchi references.

8 Q And those are the two references that you
9 rely on that explicitly disclose this claimed
10 hardness range, right?

11 A I believe so.

12 Q And those are the only two references that
13 disclose this hardness range, right?

14 A Well, Lesniak also discloses a hardness
15 range but uses different units and a slightly
16 different way of measuring hardness and may or may
17 not overlap. I did not do those conversions.

18 Q So in terms of the references that you're
19 relying on in your declarations, the two Bianchi
20 references are the only ones that explicitly
21 disclose this hardness range, right?

22 A They disclose a hardness range, yes. But

1 as I mention, Lesniak also talks about hardness
2 with a slightly different method and different
3 units.

4 Q Understood. But I don't quite think
5 that's my question.

6 You're not relying on Lesniak for its
7 hardness disclosure, right?

8 A Not on the -- not on the numbers that are
9 used in Lesniak, no.

10 Q And it's not your position that the
11 Lesniak reference discloses this claimed range
12 expressly, right?

13 A It's my opinion that it may but I didn't
14 do the conversions.

15 Q May based on what? What is your reasoning
16 behind -- that Lesniak may disclose a hardness?

17 A Well, it discloses a hardness value, and
18 obviously they prepared deodorants that were
19 useful and formed sticks, so there is a good
20 chance possibly that those values could overlap
21 with Bianchi as well.

22 Q And you don't know if they do overlap with

1 the claimed range, right?

2 A I was not asked to do a conversion, no.

3 Q So you understand it could be converted
4 but you did not do the conversion?

5 A I wasn't asked to do a conversion.

6 Q But could it be converted?

7 A I'm not sure because I wasn't asked to
8 check. But one assumes that if they were of
9 satisfactory hardness and formed a stick, that
10 there was a possibility that there is an overlap.

11 Q You're not sure if there is a way to
12 convert the range of Lesniak to the range that's
13 the metric of the P&G patents?

14 A If there is I'm not aware of one.

15 Q Let's move to Lesniak now that we're
16 talking about it.

17 MS. HARTENSTEIN: That is going be to
18 tab 5 for you, Lee.

19 Q And then Lesniak, I believe, is
20 petitioner's Exhibit 1003 for you,
21 Dr. Michniak-Kohn.

22 A Yes, I have Exhibit 1003, Lesniak.

1 (Marked for identification Exhibit 5,
2 Lesniak reference.)

3 A And did you want me also to open some
4 other document?

5 Q I think we are just going to stick with
6 Lesniak for now.

7 A I have it --

8 (Indiscernible crosstalk.)

9 MS. HARTENSTEIN: And so for the court
10 reporter, this will be Deposition Exhibit 5.

11 Q And so you recognize this as the Lesniak
12 reference?

13 A Yes, I do.

14 Q And you rely on the Lesniak reference as
15 prior art in all four of the IPRs we are
16 discussing today, right?

17 A I did.

18 Q And it's your opinion that Lesniak
19 discloses a deodorant stick, right?

20 A Correct.

21 Q And it's your position that the Lesniak
22 formulas can be deodorants as is, right?

1 A Would you perhaps rephrase your question?
2 I didn't quite understand what you meant by "as
3 is."

4 Q It's not your opinion that the
5 formulations in Lesniak require a modification in
6 order to be turned into a deodorant, right?

7 A No. They are deodorants.

8 Q You note in your declarations that Lesniak
9 discloses an antiperspirant, right?

10 A Correct.

11 Q So I just want to look at those
12 disclosures. The first time I see the word
13 "antiperspirant" in Lesniak, I think it's
14 column 4, line 23.

15 Are you there?

16 A Column 4, line 23.

17 Q Do you see that?

18 A Yes.

19 Q And that one says: Optionally, the
20 composition is not an antiperspirant.

21 Right?

22 A That is what the wording on that line

1 says, yes.

2 Q And then the next time Lesniak uses the
3 word "antiperspirant," that's in column 10,
4 line 27, I believe.

5 A Let me know when you're there.

6 A I'm there.

7 Q And that one also says -- or that one says
8 the composition can also be an antiperspirant or
9 lip balm, right?

10 A That's what it says.

11 Q And then the sentence right after that one
12 says again that the composition is not an
13 antiperspirant, right?

14 A It says: In certain embodiments the
15 composition is not an antiperspirant or a lip
16 balm.

17 Q That is all Lesniak says explicitly about
18 antiperspirants, right?

19 A Well, Lesniak tells a lot about
20 antiperspirants because it has zinc oxide in it,
21 and in a lot of the embodiments, it talks about
22 zinc oxide.

1 And it talks constantly about compositions
2 that form sticks, which is the format of an
3 antiperspirant or a deodorant as far as the
4 delivery vehicle or the dosage form is concerned.

5 Q And -- so I think that's not quite my
6 question.

7 In terms of what Lesniak says explicitly
8 about antiperspirants, it's just those three
9 sentences, right?

10 A I would disagree.

11 Q So there is no -- Lesniak only says
12 antiperspirant three times, right, the word?

13 A If you are asking me how often does the
14 word appear in the Lesniak patent, or are you
15 asking me what the Lesniak patent is about?

16 Q I'm asking how often the word appears in
17 the Lesniak patent.

18 A It's the times we just discussed.

19 Q So three times, right?

20 A The word appears three times.

21 Q And in two of those times it's in the
22 negative, right? It's not an antiperspirant?

1 A It says that in certain embodiments it
2 isn't an antiperspirant.

3 Q So there is just one time where it says it
4 can be an antiperspirant, right?

5 A No, I don't think it says in one time. It
6 says the composition can be an antiperspirant and
7 also gives a lot of information -- a person of
8 ordinary skill in the art reading Lesniak will be
9 reading the whole patent.

10 Q So Lesniak's compositions all contain zinc
11 oxide, right? I think you testified about that?

12 A That is correct.

13 Q Up to, like, 30 percent zinc oxide, right?

14 A I believe so.

15 Q And so in this deodorant stick that you
16 say Lesniak discloses, zinc oxide would be the
17 antimicrobial?

18 A The zinc oxide is the main active, but it
19 has several -- several modes of actions. Or it's
20 being used for several properties that it has.

21 Q So would you say that zinc oxide is the
22 antimicrobial in the Lesniak deodorant stick?

1 A Can you repeat the question?

2 Q It's your position that zinc oxide is the
3 antimicrobial in this deodorant stick that you say
4 Lesniak discloses, right?

5 A It's an antimicrobial, as well as an
6 antiperspirant, because it's an astringent.

7 Q So with respect to zinc oxide, you'd agree
8 that that's also used in sunscreens, right?

9 A Yes, it is. As I said, you know, a lot of
10 those compounds are multifunctional in personal
11 care formulations.

12 Q And you would also agree that it is used
13 in diaper cream?

14 A That is correct.

15 Q Lesniak doesn't identify any deficiencies
16 with zinc oxide as an antimicrobial, right?

17 A Could you repeat the question?

18 Q Lesniak does not identify any deficiencies
19 with zinc oxide as an antimicrobial, right?

20 A I believe not.

21 Q And Lesniak doesn't disclose any other
22 antimicrobials, right?

1 A No, I don't think he looks at any -- he
2 looks at another compound or mentions another
3 compound, but it's not an antimicrobial, per se.

4 Q So Lesniak doesn't disclose baking soda,
5 for example?

6 A I believe he does not.

7 Q And doesn't disclose magnesium hydroxide?

8 A He concentrates, I think, on the zinc
9 oxide.

10 Q Let's take a look at table 2, which is, I
11 think, under column 11 of Lesniak.

12 Do you see that?

13 A I'm getting there. I'm there.

14 Q So this is table of sunscreen
15 compositions, right?

16 A It's headed Sunscreens.

17 Q And all of these sunscreens compositions
18 disclose 20 percent zinc oxide, right?

19 A In this table, they do.

20 Q And then table 3 is also a couple of
21 sunscreen compositions for the header, and those
22 also include 20 percent zinc oxide, right?

1 A I believe so.

2 Q And it's your position that all these
3 compositions can be used as deodorants?

4 A I'm not sure whether these -- what
5 formulation these particular compositions form at
6 the end.

7 Q And what do you mean by that?

8 A In the sense that -- let's see what he
9 referenced. Because not all of these compositions
10 apparently satisfied some of the testing.

11 Q Okay. So the ones that satisfy all the
12 testing, would you say that those can be used as
13 deodorants?

14 A Again, I'm not sure what final
15 formulations the -- this formula -- these series
16 of formulations formed.

17 Q Looking at the ingredients and all the
18 weight percents, you can't tell right now if these
19 can be used as a deodorant?

20 A I don't know how good a stick each one of
21 these would form, but it has structurants in
22 there. It has a carrier oil. It has the zinc

1 oxide. But what type of ending viscosity,
2 hardness, right now, without doing a little bit
3 more research into it, I'm not sure whether I can
4 state.

5 Q Okay. Understood. So you're just not
6 sure as you review these compositions?

7 A They certainly are gelled, and they have a
8 structurant. But whether they are a stick at this
9 stage, and if that is the end delivery form for
10 what we would like for -- for the deodorant, then
11 I'm not sure right now. I don't know whether the
12 information is provided here.

13 Q So if we put aside the stick, could these
14 compositions, even if they are in cream form, can
15 they be used as a deodorant?

16 A Again, it depends on consumer preferences
17 because zinc oxide is an antimicrobial. And if --
18 if you had a cream, could you use it as a
19 deodorant? Possibly. I don't know how convenient
20 it would be, but...

21 Q And do you know of any deodorants that
22 contain 20 percent zinc oxide?

1 A Not off the top of my head right now.

2 Q And other than Lesniak, none of the other
3 references that you rely on in these IPRs use
4 20 percent zinc oxide, right?

5 A I would have to do more research. I don't
6 recall at this stage.

7 Q Fine. We'll be taking a closer look at
8 the references later, so we can revisit this when
9 you have the references in front of you.

10 But would it surprise you to find out that
11 none of the references disclose that level of zinc
12 oxide?

13 A It's not a problem because the POSA knows
14 what properties zinc oxide has and would adjust
15 the formula accordingly.

16 Q Understood. But I think my question was:
17 Would it surprise you to find out that none of the
18 other references disclose that level of zinc oxide
19 that Lesniak has?

20 A It doesn't necessarily surprise -- I have
21 no particular opinion either way. It doesn't
22 surprise me, and it doesn't not surprise me

1 because I know what a POSA knows about the active.
2 And, you know, as a formulator, we use different
3 percentages for different properties and different
4 dosage forms.

5 Q I understand that's your position as to
6 what a POSA would know, but I'm asking you about
7 the actual disclosures of the references.

8 So none of the other prior art that you
9 use discloses 20 percent zinc oxide, right?

10 A I can't recall at this stage.

11 Q Okay. Well, we can walk through them.
12 Let's go to that stability.

13 You had discussed some of those testing as
14 to -- on table 2, right? There's 11 compositions
15 listed there, correct?

16 A Correct.

17 Q And let's take Composition 8, for example.

18 That one is 20 percent zinc oxide, right?

19 A Yes.

20 Q And it has 10 percent sunflower oil?

21 A That's what it says.

22 Q 53 percent triglycerides?

1 A That is correct.

2 Q 15 percent beeswax?

3 A Yes.

4 Q So together, those four ingredients take
5 up 98 percent of composition, right?

6 A Yes.

7 Q And then Composition 9 right next to it,
8 that one has the same amount of those four
9 ingredients that we just discussed, right?

10 A Correct.

11 Q So 98 percent of Composition 8 and
12 Composition 9 are the same?

13 A Yes.

14 Q And the difference between these two is
15 that Composition 8 has 2 percent Castorwax and
16 Composition 9 has 2 percent cetyl alcohol; is that
17 right?

18 A That is correct.

19 Q So that's the only difference?

20 A On the list of ingredients, I believe so.

21 Q So would you agree that even small changes
22 like that can affect the stability of a

1 composition?

2 A Depends on the composition and what
3 excipients we're talking about.

4 Q In the Lesniak compositions, would you
5 agree that small changes would affect the
6 stability?

7 A There may or may not, depends on the
8 composition and what we're talking about.

9 Q Well, we're talking about Compositions 8
10 and Compositions 9 right now.

11 So would you agree that that small change
12 of 2 percent affected the stability with respect
13 to those two compositions?

14 A What stability are you referring to?

15 Q So if you go down to -- there is a
16 stability test. It says high testability, and you
17 see that there is a series of fails and passes in
18 that table.

19 Do that you see that?

20 A I see a reference to high -- high
21 temperature stability.

22 Q Okay. And then each composition has

1 either a fail or a pass underneath it, correct?

2 A Yes, it does.

3 Q And it looks like only Compositions 8 and
4 11 passed the stability test?

5 A In this series of composition, that is
6 correct.

7 Q So the other nine compositions failed the
8 stability test, right?

9 A That particular test, they apparently
10 failed.

11 Q And in Lesniak, failing the stability test
12 means that the composition separated into two bulk
13 phases, correct?

14 A Where does it refer to...

15 Q If you go to column 11, I'm looking
16 particularly at line 17: The physical stability
17 of each composition was also investigated (with a
18 "fail" indicating separation into two bulk
19 phases.)

20 A I see that.

21 Q So the compositions that failed this test
22 separated into two phases, right?

1 A Correct.

2 Q And then we have Composition 8 that we
3 were talking about that passed the stability test,
4 right? And then Composition 9, this one is
5 unstable, right?

6 A Correct.

7 Q Okay. And we've already walked through
8 how 98 percent of Composition 8 and Composition 9
9 are the same, correct?

10 A Correct.

11 Q So Composition 8 passed the stability
12 test, but Composition 9 did not.

13 And they only have 2 percent difference in
14 ingredients?

15 A In this particular -- two precise
16 formulations, apparently that is the case.

17 Q Okay. So small changes in certain
18 formulations can lead to instability?

19 A It depends what instability we are talking
20 about, and it's very particular to a combination.
21 This has obviously a lot of excipients that are
22 being missed. That's why we still need to do some

1 stability testing and some in vitro routine
2 testing as well on formulations.

3 Q When you have a lot of ingredients mixed
4 together, you have to do stability testing to see
5 how those ingredients are interacting?

6 A In general, correct.

7 Q Let's go to table 7. That is under -- in
8 line -- in column 15.

9 A I'm there.

10 Q So out of the examples that Lesniak
11 formulates, you would agree that composition in
12 table 7 is only composition that's expressly in
13 the form of a stick, right?

14 A Again, he heads this as Sunscreen Stick
15 Formulation.

16 Q And none of the other tables include this
17 stick terminology, right?

18 A They, I believe, did not use the word
19 "stick" in the -- in the legend.

20 Q Then column 15, line 9, that says that:
21 The composition could be formed into a stick by
22 the addition of sunflower seed wax, right?

1 A In this particular example of a stick
2 product, yes, that is what lines 9 and 10 say.

3 Q And then the top of column 10 of Lesniak,
4 that also talks about forming the stick. And it
5 says: Lotions, creams can be made into a stick by
6 the addition of sunflower seed wax, right?

7 A Wait a minute, column 10?

8 Q The top of column 10.

9 A In one embodiment, the lotions and creams
10 could be made into a stick by the addition of
11 sunflower seed wax, correct.

12 Q And the sunscreens in table 2 don't
13 contain sunflower seed wax, right?

14 A In table 2, let me please check.

15 No, they don't.

16 Q In table 3, those sunscreens don't contain
17 sunflower seed wax?

18 A I believe they don't.

19 Q And then the diaper creams that are in
20 table 5, those also don't contain any sunflower
21 seed wax?

22 A No, they don't.

1 Q But table 7, that sunscreen stick
2 formulation, that one includes the sunflower seed
3 wax, right?

4 A Yes, it does.

5 Q So out of all the compositions that we
6 talked about, this table 7 is the only one that
7 contains the ingredients that Lesniak discloses as
8 creating this stick, correct?

9 A Of specific examples that he gives,
10 correct.

11 Q And then we talked a little bit about the
12 hardness of Lesniak, right?

13 A Yes, we did.

14 Q That is, I think, starting -- well, one of
15 them is at column 9 around line 60.

16 A Let me get there. Column 9, 60. I'm
17 there.

18 Q And Lesniak says here that the stick can
19 have a hardness of 300 to 550 grams, correct?

20 A Correct.

21 Q And that is measured using a texture
22 analyzer?

1 A Yes, indeed.

2 Q And Lesniak doesn't indicate anywhere that
3 this hardness is insufficient, right?

4 A I believe he doesn't.

5 Q He doesn't say that the sticks are too
6 soft or too hard?

7 A I believe not, but obviously he had other
8 embodiments that had a hardness of 400 to 500
9 rather than 300 to 550. But all of these formed
10 sticks, obviously, these formulations.

11 Q And so Lesniak doesn't indicate -- or
12 sorry. Scratch that.

13 Let's go to that example -- the sunscreen
14 stick example that we were already talking about.
15 That is example 6, table 7.

16 A I'm there.

17 Q Okay. And that one, Lesniak says that
18 stick was tested and has a hardness of 432 grams,
19 right?

20 A Yes, on line 41, um-hmm.

21 Q And we've already discussed, I think, and
22 you'd agree that how Lesniak measures hardness is

1 different than how P&G patents measure hardness,
2 right?

3 A Yes, the units are different.

4 Q Do you understand Lesniak's hardness range
5 to be softer than what's disclosed in the P&G
6 patents?

7 A Again, it seems to have -- from his
8 writing, to have been a suitable stick definitely
9 for dispensing from a barrel since that's what he
10 says.

11 But since I did not do the conversion,
12 then it's difficult to, at this moment -- there
13 may be an overlap here, and I'm not sure whether
14 they vary -- they obviously can't be too soft or
15 separate because they would not have formed a
16 stick suitable for dispensing from a barrel.

17 Q Would you be surprised if a stick with the
18 hardness of 432 grams is softer than the sticks
19 claimed in the P&G patents?

20 A And again, the ranges may be overlapping
21 and this one may be on -- have been on the softer
22 side. No, I don't think it surprises me.

1 Q And for the conversion, why didn't you try
2 to convert this hardness range?

3 A I wasn't asked to do a conversion.

4 Q And you just -- you didn't want to do it
5 on your own?

6 A I did not do it on my own, no.

7 Q Would you agree that different cosmetic
8 sticks have different hardnesses?

9 A Are you asking about antiperspirant and
10 deodorant sticks?

11 Q I'm asking about cosmetic sticks more
12 generally.

13 Like, you would agree that a lipstick is,
14 you know, softer, for example, than an
15 antiperspirant stick?

16 A Some are softer, some are harder, or
17 within the range. I mean, they -- again, lip
18 balms and lip -- lipsticks vary also in their
19 hardness too.

20 Q Yeah, and aside -- I'm not asking about a
21 specific range now, just more generally.

22 So you would say that lipsticks, for

1 example, are probably harder than deodorant
2 sticks, right?

3 A A lot of them tend to be softer than
4 deodorant sticks.

5 Q Sorry, that's what I meant. Softer, yes.

6 And same with sunscreen sticks, would you
7 understand those to be softer or harder,
8 generally, than deodorant sticks?

9 A I guess it would depend on which
10 formulation you're looking at.

11 Q And what about diaper creams, that's
12 softer than a deodorant stick, right?

13 A Well, a cream from its definition means
14 that it is much softer indeed.

15 Q Let's turn -- what other cosmetic sticks
16 are out there? What are some other examples?

17 A Of sticks in the personal care and
18 cosmetic industry, is that the question?

19 Q Yeah. Yes.

20 A There are various sticks for all kinds of
21 foundation applications, for under-the-eye
22 formulations. There are perfume sticks. Again,

1 there may be others. I'm just giving you a few
2 examples here.

3 Q Do you understand that the properties of
4 each of those types of sticks is different based
5 on, you know, the use that it's being used for?

6 A Obviously the formulator looks at the end
7 use for the delivery vehicle. But all of these
8 have various levels, I guess, of structure and
9 hardness. And obviously it's such a general
10 question that there may be some overlap between
11 some of these sticks.

12 Some may be softer than a deodorant
13 or -- or harder in some cases depending on their
14 use and the formulation and the intended
15 acceptance, I think, by the consumer that's buying
16 the product.

17 MS. HARTENSTEIN: Let's pull up the
18 Phinney reference now. That is tab 6 for you,
19 Lee. And then I believe Phinney is Exhibit 1004
20 for petitioner.

21 And we can mark this as -- I think we're
22 on 6 now, Deposition Exhibit 6.

1 (Marked for identification Exhibit 6,
2 Phinney reference.)

3 DOCUMENT TECHNICIAN: It's Exhibit 6.

4 Q Let me know when you have that.

5 A I have the exhibit.

6 Q And so you recognize this as the Phinney
7 reference?

8 A Yes, this is Phinney.

9 Q And you rely on Phinney as prior art in
10 all four of the IPRs we're discussing today,
11 right?

12 A Yes, I do.

13 Q And Phinney discloses deodorant
14 formulations, right?

15 A Yes, it does.

16 Q And just to get it out of the way, Phinney
17 doesn't disclose anything explicitly about the
18 hardness of its compositions, right?

19 A The word "hardness" is not found in
20 Phinney, so I'm assuming that he doesn't discuss
21 hardness. But I'm doing a quick...

22 Again, could you repeat your question?

1 Q I was just confirming that Phinney doesn't
2 disclose anything explicitly about the hardness of
3 its compositions. And I think you were just
4 confirming that.

5 A Do you mean hardness values or other
6 information about hardness?

7 Q I mean how hard the sticks or the
8 compositions are in Phinney.

9 A Well, in the sense that he does disclose,
10 if we look at the claims, a solid stick form. I
11 mean, that's not a value of hardness, but it talks
12 about solid stick forms in the claims.

13 Q Okay. But --

14 A A POSA would understand he's talking about
15 a stick that was satisfactory overall in hardness
16 to form a stick.

17 Q Right. And so satisfactory to form a
18 stick.

19 A Um-hmm.

20 Q So you did not discuss, in your
21 declaration, Phinney with respect to any hardness
22 arguments, right?

1 A That is correct.

2 Q Let's look at the amounts of ingredients
3 in Phinney.

4 So Phinney discloses compositions with
5 between 1 percent and 2.5 percent magnesium
6 hydroxide, right?

7 A Um...

8 Q I can direct you to column 6, line 34.
9 That's one of them. Also, I believe column 5,
10 line 3 also has that.

11 A Yes, I see it.

12 Q So between 1 percent and 2.5 percent
13 magnesium hydroxide?

14 A Correct.

15 Q And then between 0.5 percent and
16 1.5 percent of zinc oxide, correct? I think
17 that's the next sentence, or maybe the same
18 sentence.

19 A Correct.

20 Q And Phinney teaches you that you should
21 have more magnesium hydroxide than zinc hydroxide,
22 right?

1 A Yes, I believe there was more effect if
2 you did a mix, yes.

3 Q And specifically, a mix that includes more
4 magnesium hydroxide than zinc hydroxide, right?

5 A Correct.

6 Q And I think in column 8, line 42 they say
7 it should be a ratio of 3 to 1, right?

8 A Yes, correct.

9 Q And I know we discussed zinc oxide already
10 with respect to Lesniak.

11 And so Phinney does not disclose
12 20 percent zinc oxide like Lesniak, right?

13 A I believe it doesn't.

14 Q It's the zinc oxide is much lower in
15 Phinney?

16 A It is.

17 Q And Phinney's formulations also contain
18 the disinfecting agent potassium chloride or
19 potassium sulfate, right?

20 A Yes, I believe they do.

21 Q And Phinney explains that this
22 disinfecting agent is used to destroy the

1 microorganisms associated with odor, right?

2 A I think in particular it refers to the
3 combination of -- of the magnesium and the zinc
4 together.

5 Q With the disinfectant?

6 A And he also refers to, in column 7, just
7 looking at the magnesium oxide and zinc oxide
8 together, with a bactericidal agent for
9 microorganism controlling the fact that that has
10 not been identified previously.

11 Q So let's look at the abstract. And that
12 says -- it says the combination provides
13 long-lasting odor protection since the
14 disinfectant destroys odor-causing microorganisms,
15 correct?

16 A Can you point to me where are you reading
17 that from?

18 Q Yes, that is the abstract, so on the first
19 page of Phinney. Phinney says: The formulations
20 all commonly include magnesium oxide, zinc oxide
21 and this disinfecting agent. And then says: The
22 combination provides long-lasting odor protection

1 since the disinfectant destroys odor-causing
2 microorganisms, correct?

3 A That's what it says there, yes.

4 Q And then let's go to column 3, line 66.
5 Let me know when you're there.

6 A Under Summary of Invention, I'm there.

7 Q And here it talks again about this
8 disinfectant agent comprising at least one of
9 potassium chloride and potassium sulfate.

10 Do you see that?

11 A I see that.

12 Q And they say that is for destroying
13 microorganisms associated with odor, right?

14 A That's what they say.

15 Q And then it goes on to include zinc oxide
16 and magnesium oxide together, right?

17 A Which are also known antimicrobials. And,
18 of course, in these formulations, people did --
19 and formulators did mix more than one, and in some
20 cases there was synergy as well, or increased
21 effect.

22 Q And Phinney doesn't disclose any

1 compositions that contain magnesium hydroxide
2 without the presence of the zinc oxide and
3 disinfectant agent, right?

4 A (No verbal response).

5 Q We can walk through a few examples, if
6 that would be helpful. We could first start at
7 column 3 -- oh, we already did that one --
8 column 3, line 64, and extending on to the next
9 column; that one includes magnesium oxide, zinc
10 oxide, and the disinfecting agent, right?

11 A Yes, it does.

12 Q And then 4, 15 -- column 4, line 15 --
13 that one also contains zinc oxide, magnesium
14 oxide, and the disinfecting agent, right?

15 A Yes.

16 Q And then at line 30, that's another one
17 that also includes all three of those ingredients,
18 right?

19 A Which column?

20 Q Column 4, line 30, now. It starts there.

21 A Yes, it does.

22 Q And then line -- the same column, line 45,

1 that's another embodiment of the invention, right?

2 A Yes.

3 Q And that one is talking about the method,
4 and it talks about formulating the deodorant and
5 mixing the magnesium oxide, zinc oxide, and then
6 this potassium sulfate or potassium chloride?

7 A Yes, it does.

8 Q And then if we look at line 59 in that
9 same column, that's another embodiment, and it
10 also comprises magnesium oxide, MgO; zinc oxide,
11 ZnO; and then potassium sulfate or potassium
12 chloride, right?

13 A Yes, indeed.

14 Q And then column 5 at the top, that's
15 another composition, and that one also contains
16 magnesium oxide, zinc oxide and potassium
17 chloride, right?

18 A Right. Yes, and are all known
19 antimicrobials.

20 Q If we scroll down to the claims, each of
21 the claims of Phinney also requires zinc
22 hydroxide, magnesium hydroxide, and then either

1 potassium chloride or potassium sulfate, right?

2 A Yes, he always adds the additional
3 antimicrobial into the -- into the mix, yep.

4 Q And so none of these compositions that are
5 disclosed in Phinney contain magnesium hydroxide
6 alone without the other two elements that we've
7 discussed, right?

8 A No, because I guess his invention was
9 the -- the actual combination that he was looking
10 at. That magnesium hydroxide was known as an
11 antimicrobial on its own as well. There are
12 plenty of other references that utilize that. And
13 it's always on the lists, too, so -- available to
14 the formulator.

15 MS. HARTENSTEIN: We are at hour, so if we
16 want to take another break, I think this is a good
17 place to stop.

18 THE WITNESS: Okay. Let's do that if it's
19 okay with everyone.

20 (Off the record.)

21 BY MS. HARTENSTEIN:

22 Q So did you talk with counsel at the break

1 about the substance of your testimony?

2 A No, absolutely not.

3 Q And were you able to track down the
4 official date that you were retained?

5 A Sorry, I did not do that. I was planning
6 to do that over lunch.

7 Q That's fine. I will circle back on that.

8 Let's finish up with the Phinney
9 reference. Look at some of the other ingredients
10 of Phinney.

11 The compositions in Phinney are not
12 anhydrous, right?

13 A I believe not, because of the -- he lists,
14 even in the claims, a deodorant formulation and a
15 solid stick form, and there is water in -- in the
16 formulation.

17 Q And I think column 5 at the top, line 3,
18 that says there is 20 percent water in that one,
19 right?

20 A Column 5, line 3, let me just have a look.
21 Yeah, 20 percent water, correct.

22 Q And then I know we also discussed that

1 disclosure in column 4 about mixing the components
2 into water, right?

3 A Yes.

4 Q And then the ingredient present in the
5 largest amount in Phinney is the polyol, right?

6 A Yeah, I'm looking at the claim at least,
7 the polyol is listed first.

8 Q And then if you look at, let's say,
9 column 5 again, line 4, that one -- or line 3,
10 that includes 55 percent propylene glycol, right?

11 A Sorry, you are going very fast.

12 (Indiscernible crosstalk.)

13 Q Column 5 line 4. Actually, I think it's
14 line 3. 55 percent propylene glycol, right?

15 A Indeed, that's what says.

16 Q And then I think in column 6, line --
17 around 37, that one they disclose 45 to 57 percent
18 by weight propylene glycol?

19 A Yes, indeed.

20 Q So that is the ingredient in the largest
21 amount in the compositions disclosed in Phinney,
22 right?

1 A Correct.

2 Q And would you say, then, that Phinney is
3 one of the those glycol gel sticks that we talked
4 about at the beginning and you discussed in your
5 background?

6 A Well, it is one of the -- yeah, because
7 it's using the propylene glycol and the polyol.

8 MS. HARTENSTEIN: A Bianchi '518
9 reference, which is, for you, Lee, tab 7.

10 And I believe it's Exhibit 1006 for
11 petitioner.

12 A We're talking about Bianchi '518, correct?

13 Q Yes.

14 A I have it open.

15 MS. HARTENSTEIN: And that will be marked
16 as Deposition Exhibit 7.

17 (Marked for identification Exhibit 7,
18 Bianchi '518 reference.)

19 Q And so you recognize this as the
20 Bianchi '518 reference that you rely on in the
21 four IPRs?

22 A I do.

1 Q And specifically, you rely on the hardness
2 range disclosed in Bianchi, right?

3 A I do.

4 Q So let's look at the range. I think
5 column 6, line 25, I believe.

6 A Yes. I'm there.

7 Q It says: Typical compositions of the
8 invention will range in hardness from about 7 to
9 about 14 millimeters as shown by -- and then the
10 needle penetration test.

11 Right?

12 A That's what it says.

13 Q And that's what you're relying on?

14 A Yes, as part of the ranges of hardness,
15 correct.

16 Q And that's Bianchi's only discussion of
17 the hardness range, right?

18 A I believe it is.

19 Q Bianchi '518 doesn't provide any
20 disclosures about how to achieve that hardness,
21 right?

22 A Well, it discusses sticks and

1 formulations.

2 Q It doesn't say which ingredients
3 contribute to the hardness, for example, right?

4 A It does, because, you know, a formulator
5 would be looking at any information in the entire
6 patent, and obviously knows that there are waxes
7 there that contribute to the hardness. I mean,
8 there is a lot of information in the entire
9 patent.

10 Q Understood. So in terms of the Bianchi's
11 disclosure, is there discussion in Bianchi as to
12 which ingredients contribute to the hardness?

13 A A discussion -- you're specifically asking
14 is there a discussion?

15 Q Is there any mention of which ingredients
16 contribute to hardness in Bianchi?

17 (Witness reviewing document.)

18 A Well, he discusses the fact -- and I'm
19 looking right now on column 6 -- that the
20 compositions of the present inventions are
21 excellent antiperspirant compositions. And the
22 fact --

1 Q That doesn't talk about hardness, right?

2 A Well, below it, it says: One important
3 physical parameter affecting consumer acceptance
4 of suspensoid antiperspirant sticks of the
5 invention is hardness as measured by needle
6 penetration.

7 So in a way, that is a discussion of
8 relating hardness to what's acceptable to the
9 consumer and the fact that the compositions that
10 he presents to the person of ordinary skill are
11 excellent antiperspirant compositions.

12 Q But my question was: Does Bianchi say
13 which ingredients in their compositions contribute
14 to the hardness?

15 A Well, indirectly, because if he's saying
16 that here are some examples of formulations that
17 resulted in a composition of this invention that
18 are excellent antiperspirants, then -- and the
19 importance of measuring hardness... would imply,
20 at least to the person of ordinary skill in the
21 art, of what ingredients may contribute to that,
22 and of course, you know, he has some compositions

1 that he mentions in columns 7 and 8 -- waxes and
2 that kind of combination where the POSA knows that
3 waxes must, by definition as excipients,
4 contribute to hardness.

5 Q Okay. That's, again, not my question.

6 (Indiscernible crosstalk.)

7 Q That's okay. Bianchi doesn't have an
8 explicit direct correlation between any particular
9 ingredients and the hardness, right?

10 A By explicit, there is a sentence that
11 says: Hardness is related to the presence of or
12 something like that.

13 Is -- is that your question?

14 Q Yeah, that would be an example. Yes.

15 (Witness reviewing document.)

16 A I did a search for the word "hardness,"
17 and it appears twice. And we have gone over those
18 two cases.

19 Q Okay. So there is no explicit direct
20 correlation between any particular ingredient on
21 one hand and then the specific hardness range on
22 the other in Bianchi?

1 A Again, is there a sentence that correlates
2 one and the other? Well, again, I -- I -- I still
3 believe that a POSA is reading the whole -- the
4 whole patent and knows that, you know, hardness is
5 an important factor.

6 So I think he is relying on, you know,
7 scientific knowledge of anyone that is a POSA
8 reading this material which ingredients would
9 contribute to the hardness.

10 But does it say in an absolute sentence
11 the relationship between one and the other -- and
12 I think it's the question you are asking me -- no.

13 Q Okay. Yeah, I understand that that's your
14 argument. My question was: Is there explicit
15 direct, you know, one-to-one correlation with the
16 specific hardness range and the -- a particular
17 ingredient or set of ingredients?

18 A And the way I'm understanding your
19 question is: Is there a sentence that says, a
20 hardness of this range, you would use Excipient A,
21 B and C. I did not see a sentence like that.

22 Q Well, would you say that the ingredients

1 working together contribute to the hardness?

2 A Well, in any formulation, a formulator
3 would know that it's the -- the -- the hardness of
4 the final dosage form is the entire composition.
5 And there are some specific ingredients within the
6 formulation that contribute more to hardness or
7 softness than others.

8 Q Okay.

9 A So the ratio between them and the
10 combination between them contributes to hardness.

11 Q Okay. It depends on all the ingredients
12 and all the amounts, right?

13 A No. The hardness value is obviously
14 measured in the final stick, which is the final
15 composition.

16 Q So yes?

17 A Yes to what?

18 Q It depends on all the ingredients and all
19 the amounts?

20 A That's not exactly what I said. I said
21 the hardnesses measured on the final dosage form,
22 which obviously has to be the final stick with all

1 of the excipients there. But the formulator knows
2 which particular excipients contribute to more
3 hardness or less hardness and how to reformulate
4 and -- and create another version of the stick.

5 So that's obviously in Bianchi.

6 Q Let's look at the specific compositions.
7 If we scroll down to column 5, I would like to
8 start with the first table, for example, A-H.

9 Do you see that?

10 A I see it.

11 Q And each of those examples contain
12 20 percent or more of AZG-370, right?

13 A Yes, AZG-370. 20 percent or higher. Yes.

14 Q And AZG-370 is a mixed aluminum salt?

15 A I don't recall what that is.

16 Q If you go up to column 3 around line 45,
17 that might help refresh your memory. That talks
18 about ZAG and AZG compounds?

19 A Yes, I'm looking for that definition. It
20 was line?

21 Q It's starts column 3, line 45, just
22 discusses, you know, different antiperspirants

1 that include these ZAG/AZG compounds?

2 A Yes, those. I was looking for this. Yes,
3 um-hmm.

4 Q And so those are mixed zirconium aluminum
5 salts, right?

6 A Indeed.

7 Q And then let's look at examples I through
8 R next, which is also in column 5. Some of those
9 ones contain this AZG-370.

10 Do you see that?

11 A Yes.

12 Q And then others contain this Q5-7167.

13 Do you see that?

14 A I see that.

15 Q Do you understand that Q5-7167 is also an
16 aluminum zirconium salt compound?

17 A I believe it is. I'm just looking where
18 he has defined it.

19 Q I'm not sure if -- if it's in Bianchi,
20 what that -- what that compound is, but just
21 your -- your knowledge of the field?

22 A I don't remember which complex this is.

1 It's -- it's some aluminum complex, but
2 specifically which one?

3 Q Okay.

4 A There are so many, by the way. And I've
5 worked on a lot of them, so...

6 Q Understood. Understood. So Examples I
7 through R, those all contain some aluminum, too,
8 right?

9 A I believe so.

10 Q And then if we look at Examples S through
11 U, which is at the bottom of column 5 and then
12 continues on to column 6.

13 Do you see that?

14 A I -- I see the table, okay.

15 Q And then those three all also contain
16 aluminum, right?

17 A Yes, they do.

18 Q Then the same question for silicones:
19 Would you agree that all the examples in these
20 tables all contain silicones?

21 A Yes, they do.

22 Q And then Bianchi says that its

1 compositions contain 30 to 50 percent of
2 silicones, right? Or column 4, lines 10 through
3 12, if that's helpful?

4 A It is. Column 4, lines 10 to 12. Okay.

5 Can you repeat your question?

6 Q Compositions contain 30 to 50 percent
7 silicones, right?

8 A Correct.

9 Q And then in this -- in the Bianchi
10 compositions, would the silicone be the -- the
11 carrier oil or carrier system that we discussed
12 before?

13 MR. OLIVER: Objection, form.

14 A The silicones here cyclomethicone,
15 dimethicone.

16 Again, there may be carrier oils and --
17 and also giving some kind of structure to once the
18 waxes are formed as well. They may have some dual
19 action. And, again, it would depend on this
20 particular formulation -- set of formulations that
21 he's got.

22 Q And Bianchi '518 doesn't disclose

1 compositions with magnesium hydroxide, right?

2 A I believe he doesn't, no.

3 Q And what about baking soda?

4 A I believe that he concentrates on -- on
5 these aluminum zirconium complexes and aluminum
6 complexes, so he doesn't mention, I don't think,
7 baking soda.

8 Q And he doesn't mention zinc oxide, right?

9 A He does not mention zinc oxide.

10 Q And so Bianchi doesn't disclose
11 compositions with 20 percent zinc oxide, right?

12 A No, he does not.

13 Q And Bianchi is an anhydrous composition,
14 right?

15 A Yes, it is.

16 Q Let's turn to the next -- the second
17 Bianchi reference.

18 MS. HARTENSTEIN: I believe that is tab 8
19 for you, Lee, and Exhibit 1008 for petitioner.
20 That will be Deposition Exhibit 8.

21 (Marked for identification Exhibit 8,
22 Bianchi '254 reference.)

1 A I have it open.

2 Q And you recognize this is as the
3 Bianchi '254 reference you rely on in your
4 declarations?

5 A Correct.

6 Q And like the other Bianchi reference, you
7 rely on this Bianchi reference in part for its
8 hardness range disclosure, right?

9 A Correct.

10 Q And if we go to that range at
11 paragraph 26.

12 A I'm at paragraph 26.

13 Q It says: In one embodiment of interest it
14 is desirable that the antiperspirant stick
15 compositions have hardness values from 5 to 15
16 millimeters.

17 Do you see that?

18 A Sorry, which?

19 Q It's in paragraph 26 kind of right in the
20 middle. The one --

21 A I see it now. Okay. Um-hmm.

22 Q And then it says: In another embodiment

1 the stick compositions have a hardness from 8 to
2 15 millimeters, preferably 8 to 10 millimeters,
3 measured pursuant to the Hardness Method, right?

4 A I see that.

5 Q And according to the Needle Penetration
6 Hardness Method, lower numbers mean harder sticks,
7 right?

8 A Well, he even talks about in the line
9 after: The hardness values within these ranges
10 are indicative of self-supporting solid stick.

11 So at least a stick came together that are
12 somewhat on the soft side, compared to many
13 commercially available stearyl alcohol containing
14 sticks.

15 Q But with this needle penetration test,
16 lower numbers indicate a harder stick, right?

17 A Yes, lower numbers would correspond to a
18 harder stick. Yes, it would mean that the needle
19 is unable to go as far in into the -- into the
20 stick portion. Yes, correct.

21 Q And Bianchi doesn't say which ingredients
22 contribute to hardness, right, in this -- this

1 disclosure?

2 (Witness reviewing document.)

3 Q Were you able to find anything about a
4 correlation between particular ingredients and the
5 hardness?

6 A That's what I'm looking for. And the
7 formulations in table 2, he talks a little bit
8 about whether stearyl alcohol is there or isn't
9 there and which formulation -- formulations had
10 certain values of hardness given in table 2.

11 So indirectly, he's presenting the POSA
12 with some information related to -- to what's in
13 the stick.

14 Q So he's comparing a full stick -- a full
15 formulated stick, correct, in table 2?

16 A Correct.

17 Q So we know that the formulation sticks has
18 a differently hardness then these AP S1 through 5,
19 for example, correct?

20 A Correct.

21 Q We don't know which ingredient in
22 Formulation 6 versus, you know, the APS

1 ingredients are creating that different hardness,
2 right?

3 A I believe that we...

4 Q Bianchi doesn't disclose that, right?

5 (Witness reviewing document.)

6 A Again, are you looking for a specific
7 sentence that says "hardness" and these were
8 the -- he is talking about stearyl alcohol in the
9 presence of and what it does to hardness and
10 provides some formulation excipient values.

11 Q Yeah, so I understand your position on
12 these -- what the person of skill in the art
13 would -- would know from reading this.

14 But my question is: There is no direct
15 information regarding a correlation between any
16 particular ingredient and specific hardness in
17 this Bianchi disclosure?

18 A I did not after a search of hardness see a
19 sentence that says if you add this or this, the
20 hardness changes and if you add this as a -- apart
21 from the discussions that I think we already said
22 about this stearyl alcohol presence or absence.

1 Q Let's look at the compositions more
2 specifically.

3 If you go to page 9, table 1, do you see
4 that?

5 A Yes, the antiperspirant formulations in
6 table 1, um-hmm.

7 Q So those are Formulations 1 through 11,
8 right?

9 A Yes.

10 Q And each of those examples contain
11 20 percent or more of AAZG, right?

12 A That is correct.

13 Q And AAZG is a mixed aluminum salt?

14 A I believe so.

15 Q And these all contain silicon, too,
16 right?

17 A Yes, they do.

18 Q Let's look at Formulations 12 through 19
19 next. Those are on page 11, table 5.

20 A I see table 5.

21 Q And these all also contain 20 percent or
22 more of mixed aluminum salts, right?

1 A Yes, they do.

2 Q And these all contain silicons too?

3 A Yes, they do.

4 Q Bianchi doesn't disclose compositions that
5 have magnesium hydroxide, right?

6 A I believe he doesn't, no.

7 Q And no baking soda?

8 A No.

9 Q What about zinc oxide?

10 A In his formulations, no.

11 Q So Bianchi doesn't disclose any
12 antiperspirant formulations with 20 percent zinc
13 oxide, for example?

14 A No, he doesn't mention zinc anywhere in
15 the patent. I just did a search for it.

16 Q Okay. I also would like to talk about
17 table 6, which is on page 12.

18 Do you see that?

19 A I'm getting there, sorry.

20 Q No, I'm sorry.

21 A I'm on page 12. And you said table 6?

22 Q Yes.

1 So table 6 has testing results for those
2 19 formulations that we just talked about, right?

3 A I'm just reading a little bit about what's
4 in here.

5 Q I believe the 1 through 19 at the top
6 correspond to the Formulations 1 through 19 that
7 we discussed in tables 2 and 5 -- or tables 1 and
8 5?

9 A Yes, they do.

10 Q And it looks like Bianchi performed two
11 runs of hardness testing on these formulations,
12 right?

13 A Yes. He talks about Hardness Run 1 and
14 Hardness Run 2.

15 Q And would you agree with me that 8 is the
16 highest hardness result in this table?

17 A Yes, I see 8 is the highest.

18 Q And that's one of two hardness results for
19 Formulation 15, right?

20 A Yes, correct.

21 Q So according to this table, all the other
22 formulas are harder than Formula 15, right?

1 A Correct.

2 Q Let's turn to Native next, which is
3 Petitioner's Exhibit 1007 and tab 9.

4 MS. HARTENSTEIN: And we can mark that as
5 Deposition Exhibit 9.

6 (Marked for identification Exhibits 9/10,
7 affidavit/Native website.)

8 A This is Exhibit 1007, yes?

9 Q Yes.

10 A The affidavit?

11 Q And then it includes the Native website
12 later on, correct?

13 A Yes, it's part of the exhibits, yes.

14 Q And so you recognize this as the Native
15 reference that you rely on in your declarations?

16 A Yes.

17 Q Let's look at the website. If I can draw
18 your attention to page 11 of the PDF. Let me know
19 when you're there.

20 A I'm there.

21 Q And that is the list of ingredients that
22 you rely on in your declaration, right?

1 A I'm having a problem with this PDF. I can
2 see the two photos of Native deodorant. And...

3 Thank you.

4 MR. OLIVER: Just for the record --

5 A Yes.

6 MR. OLIVER: I zoomed out on the PDF.

7 A Yeah, I was just wondering what's
8 happening with that exhibit.

9 Okay. I'm there now and I can see the
10 full page.

11 Q That's okay.

12 A The ingredients, yes, are at the bottom.
13 That's what I was looking for.

14 Q Okay. And so you say in your Native
15 arguments that stearyl alcohol is the primary
16 structurant, right?

17 A Yes, based on the viewpoint of P&G, that
18 that is the primary structurant and that arrowroot
19 powder is not.

20 Q Okay. And then Native also lists
21 triglycerides as, you know, the first ingredient,
22 right?

1 A Yes, correct.

2 Q And looking at the ingredients of Native,
3 would you understand that the triglycerides would
4 be the liquid carrier that we had discussed
5 before?

6 A Correct.

7 Q And then Native contains an antimicrobial,
8 right?

9 A Correct.

10 Q And it's baking soda?

11 A Yes.

12 Q Does Native include any other
13 antimicrobials?

14 A I believe that is the main one.

15 Q The main one.

16 Is there any others?

17 (Witness reviewing document.)

18 A I believe not.

19 Q Native is aluminum free, right?

20 A Yes, it is aluminum free.

21 Q And it doesn't contain any silicones?

22 A Does not contain silicones, no.

1 Q The Native reference that you're relying
2 on, there is no discussion of hardness, right?

3 A In this particular reference, no.

4 Q And there is no discussion on formulating
5 this stick, right?

6 A In this particular reference?

7 Q Correct.

8 A Other than what the ingredients are in the
9 order of -- order of amounts, at least, and the
10 fact that it forms a stick, as the diagram shows.

11 And there is -- the question was: Did it
12 include hardness and?

13 Q The question was: There is no discussion
14 in this Native reference on formulating the stick?

15 A Could you clarify what you mean by
16 "discussion"?

17 Q The sentence said all about how to
18 formulate a stick, there is no discussion on how
19 to mix the ingredients together, for example?

20 A No, but a person of ordinary skill in the
21 art and a formulator in this area has a lot of
22 information here because they have all of the

1 ingredients, the order at least of the ingredients
2 and amounts, and also know what each ingredient is
3 for and would be able to do some experimentation
4 and obviously know that you can come up with a
5 solid product.

6 Q I understand your arguments on the person
7 of ordinary skill in the art. I'm just asking
8 about what this reference specifically discloses
9 within the four corners of this Native reference.

10 And it doesn't talk about any formulation
11 details regarding how to mix the ingredients,
12 right?

13 A If you're asking if there is an outlined
14 procedure for making this, then we only know what
15 the ingredients are is what we're looking at now
16 on the screen.

17 But again, if that was the case, that a
18 formulator could not make a formulation from this
19 information, then it would be very difficult to
20 have the generic market in our drugs.

21 Q Okay. But -- so you would agree with me
22 that this is just an ingredient list, right?

1 A Yes, but it gives a lot of information.

2 Q Understood.

3 But it's -- on the four corners of this
4 reference, it's just a list of ingredients,
5 correct?

6 A It's a list of ingredients with a lot of
7 value in them for the formulator.

8 And if you're asking is there an outlined
9 procedure of how you do whatever step, there isn't
10 a paragraph like that here.

11 I'm not sure whether I'm answering your
12 question, but...

13 Q So you understand that Native was a
14 deodorant stick that was on the market and being
15 sold in 2016, right?

16 A That's correct.

17 Q And would you agree that there's no
18 criticisms of the Native deodorant in this Native
19 reference, right?

20 A In this particular reference, no.

21 Q So if we go to page 8 of the PDF -- let me
22 know when you're there.

1 A I'm on page 8.

2 Q And those are three positive reviews from
3 consumers, right?

4 A These are quotes about issues with
5 aluminum. I hope I'm looking at the right page.

6 Q People Love Us, is that what you see?

7 Oh, are you zoomed out or zoomed in again
8 maybe?

9 A I'm looking at a page that says Aluminum
10 is Bad For You. That might be Justin's --

11 Q Yeah, so under that, under that --

12 A Oh, okay.

13 (Indiscernible crosstalk.)

14 A Oops.

15 Q Do you see those three reviews now?

16 A Yes. They're very small but I see
17 something, okay.

18 Q And those are five star reviews, right?

19 A Yes, those three people have given five
20 stars there, yes.

21 Q And then if you look at page 11 again,
22 where we were before that has that ingredient

1 list --

2 A I'm there.

3 Q -- and in the red on the right, you see
4 that there's -- do you see 100 -- 1,891 customer
5 reviews in the top corner?

6 A I see that.

7 Q And that looks like pretty close to five
8 stars, right? It looks like a 4 point, I don't
9 know, 8?

10 A Yes, um-hmm. Correct.

11 Q And so there's nothing on the face of this
12 Native reference that indicates a problem with the
13 stick, right?

14 A Not related to what we've just seen, no.

15 MS. HARTENSTEIN: I think we have ten
16 minutes left until your lunch gets here. I'm
17 going to start on another reference. I'll just
18 leave it up to you guys if you want to start
19 and -- or if we want to just break for lunch now.

20 MR. OLIVER: I'm happy to go another ten
21 minutes.

22 THE WITNESS: Me too.

1 MS. HARTENSTEIN: Great.

2 Q So let's go to Easy Homemade next.

3 I think that is maybe 1009 for you. Is
4 that right? Yes, 1009 for you.

5 MS. HARTENSTEIN: And that will be tab 10
6 for Lee.

7 A I'm there.

8 Q So do you recognize this reference as the
9 Easy Homemade reference you rely on in the IPRs?

10 A Yes.

11 Q And so this is a blog post written by one
12 individual, right?

13 A I believe so.

14 Q And if you go to page 7 of the PDF, that
15 is her deodorant recipe at the bottom, right?

16 A Yes, it is.

17 Q So she starts with a natural aluminum-free
18 deodorant base.

19 Right?

20 A Yes.

21 Q And then she adds some arrowroot powder
22 and magnesium hydroxide?

1 A Correct.

2 Q Do you know what natural deodorant base
3 she is starting with?

4 (Witness reviewing document.)

5 A Can you repeat the question, please?

6 Q Yes. Do you know what natural deodorant
7 base she's starting with?

8 A At this stage I'm not sure.

9 Q And then if you look on this same page at
10 top, it looks like -- so she bought two natural
11 deodorants, this Tom's of Maine one, and then the
12 Jason Tea Tree stick one.

13 Do you see that?

14 A Which page are you on?

15 Q Same page, page 7 of the PDF.

16 A Seven. Yes, I see the Jason Tree.

17 Q And the Tom's of Maine?

18 A Yes.

19 Q She says she melted them down and then
20 added magnesium hydroxide and arrowroot powder,
21 right?

22 A Yes.

1 Q So she bought a natural deodorant and then
2 added magnesium hydroxide and arrowroot powder,
3 right?

4 (Witness reviewing document.)

5 A Yes, I believe so.

6 Q And she doesn't talk about removing any
7 ingredients from these sticks; she's talking about
8 adding ingredients, right?

9 A That is correct.

10 Q And there is no discussion of the hardness
11 of this homemade stick, right?

12 A No, there is no discussion of hardness.

13 Q And there is no discussion of stability?

14 A Nope, there is no discussion on stability.

15 MS. HARTENSTEIN: I think I'm going to
16 take a break now. So do you want to break for
17 lunch?

18 THE WITNESS: Yes.

19 MR. OLIVER: Sure, that works.

20 (Off the record.)

21 BY MS. HARTENSTEIN:

22 Q So were you able to determine, on the

1 break, when you were retained?

2 A You know what, can I -- I know where it
3 is. My apologies. You know, with the lunch being
4 late and everything else, it slipped my mind.

5 Q If we want to go off the record really
6 quick and you want look that up, we can --

7 A No need.

8 Q Okay. We'll do that at the next break,
9 then.

10 A I'm opening up the engagement letter right
11 now.

12 Q Okay.

13 A It's just taking its time.

14 Okay. So I have the engagement letter,
15 and it's dated April the 29th of 2024.

16 Q Okay. And did counsel for Dr. Squatch
17 tell you that they had already disclosed some of
18 the combinations that you rely on to P&G prior to
19 that date?

20 A They may have done. I don't remember.

21 Q Okay. Let's talk about the Lamb reference
22 next.

1 MS. HARTENSTEIN: That is Petitioner's
2 Exhibit 1005, and that will be tab 11 for you,
3 Lee.

4 We can mark that as Deposition Exhibit 11.

5 (Marked for identification Exhibit 11,
6 Lamb reference.)

7 A I have it.

8 Q And do you recognize this as the Lamb
9 reference you rely on as prior art in three out of
10 the four IPRs we are discussing today?

11 A Yes, I do.

12 Q And I think you just don't use it in the
13 '647 IPR, right?

14 A I believe not. But I'm not sure at this
15 moment.

16 Q So Lamb is from 1946, right?

17 A Indeed.

18 Q And then this is a study where people were
19 using just plain sodium bicarbonate as a
20 deodorant?

21 A Yes.

22 Q And so Lamb isn't talking about a stick,

1 right?

2 A Can you repeat the question?

3 Q Lamb doesn't talk about a stick, right?

4 A I believe it does not.

5 Q This is just a single ingredient?

6 A He does talk about a formulation on
7 page 132 that's more than a single ingredient but
8 that's from some other dermatologist.

9 Q Correct. Yes.

10 So the study in Lamb was about just a
11 single ingredient, correct?

12 A I believe so.

13 Q And so there is no disclosure of the
14 hardness of the composition in Lamb, right?

15 A No, there is not.

16 Q And no disclosure of stability or anything
17 like that, right?

18 A No, he did not look at stability, no.

19 MS. HARTENSTEIN: So let's look now at
20 petitioners Exhibit 1067. That's Nabavi, and that
21 will be tab 12 for you, Lee.

22 A The exhibit number was, sorry?

1 MS. HARTENSTEIN: It was 1067.

2 THE WITNESS: 1067. Thank you.

3 Q Do you have that one up?

4 A Yes, I do.

5 Q Do you recognize this as the Nabavi
6 reference that you rely on as prior art in the
7 '647 IPR?

8 A Yes, I do.

9 Q And it's your position that Nabavi
10 discloses cinnamon oil as an antimicrobial, right?

11 A Correct.

12 Q Nabavi doesn't disclose or doesn't include
13 any discussion about deodorant or antiperspirant
14 sticks, right?

15 (Witness reviewing document.)

16 A Can you repeat the question?

17 Q Nabavi doesn't include any discussion
18 about deodorant or antiperspirant sticks, right?

19 A I believe he doesn't talk about sticks,
20 no, but talks about the antibacterial activity,
21 even on skin -- skin bacteria as well.

22 Q Okay. But no discussion about deodorants

1 specifically, right?

2 A No, the word "deodorant" is not used.

3 Q And no discussion of antiperspirants,
4 right?

5 A Correct.

6 Q So Nabavi doesn't include any disclosure
7 of cinnamon oil actually being used in a
8 deodorant, right?

9 A He specifically -- he talks on page 7738
10 at the bottom about other -- other investigations
11 of studied protective effects of cinnamon in
12 cosmetic products. And obviously, a lot of
13 references about how good an antimicrobial
14 excipient this essential oil is.

15 Q Okay. But no disclosure of the cinnamon
16 essential oil actually being used in a deodorant
17 stick, right?

18 A Not the words of "deodorant" but does
19 use -- what was his -- cosmetic products.

20 Q And there's lots of different types of
21 cosmetic products, right?

22 A Yes, that was being used as whole class

1 but would include deodorants and antiperspirants.

2 (Cough.) Sorry.

3 Q Let's look at Stoia next. That's
4 S-T-O-I-A. And that is Exhibit 1058, I believe.

5 MS. HARTENSTEIN: And that will be tab 13
6 for you, Lee.

7 (Marked for identification Exhibit 12,
8 Stoia reference.)

9 Q Do you have that one up?

10 A Yes, I have that.

11 Q Do you recognize this as the Stoia
12 reference that you rely on in the '706 IPR?

13 A This is the one.

14 Q And you rely on this for its disclosure of
15 sunflower seed oil, right?

16 A That's correct.

17 Q And it's your position that POSA would
18 have been motivated to include sunflower oil in
19 Native based on the teachings of Stoia, correct?

20 A Correct.

21 Q And Stoia doesn't include any discussion
22 about deodorant sticks, right?

1 (Witness reviewing document.)

2 A When it discusses cosmeceuticals and
3 cosmetic products, even in the introduction, talks
4 about emollient and antioxidant properties of the
5 sunflower oil. And, of course, the POSA knows
6 anyway about vitamin E and its usefulness because
7 it's been around for such a long time.

8 But let me just check on whether the
9 word -- you asked me for "deodorant," yes?

10 Q Yes.

11 A Yes. A specific word "deodorant" on a
12 search did not yield anything, but there is a lot
13 of discussion about cosmetic products that
14 obviously include deodorants and the benefits of
15 using this oil that has to coffer on it.

16 Q And Stoia doesn't include any discussion
17 about antiperspirants, right?

18 A The word "antiperspirants" is not used in
19 this reference.

20 Q So Stoia doesn't include any disclosure of
21 sunflower seed oil actually being used in a
22 deodorant stick, right?

1 A It doesn't mention the word "deodorant,"
2 no. We'd established that.

3 MS. HARTENSTEIN: Can we go off the record
4 quickly.

5 (Off the record.)

6 BY MS. HARTENSTEIN:

7 Q Okay. So do you routinely cite to blog
8 posts in your work?

9 A Yes, as a form -- you see I do topicals
10 and transdermals and mucosal drug deliveries,
11 follows the kind of classes that -- that I do
12 research in, and there are lots of topical
13 products.

14 I mean, you look at Amazon, and the --
15 there are so many things over the counter. And
16 patients and consumers post a lot of opinions or
17 sometimes, you know, if there is trouble with
18 something that they feel is -- is worth posting.

19 So depending on the formulation, I don't
20 routinely go on, you know, accidentally because
21 there's too much work. But if it -- if I read
22 about something -- obviously any person of

1 ordinary skill in the art looks at as many
2 materials as they possibly can. And if it's
3 relevant, you know, these days of the internet and
4 the websites, yes, you do have a look at what
5 people like.

6 And certainly, somebody designing a
7 formulation would see in -- in the personal care
8 arena, certainly, are there any consumer
9 preferences, is there anything out there that
10 consumers like or prefer, or et cetera.

11 Q Okay. Okay. So I asked if you cite to
12 blog posts in your work.

13 So sitting here today, can you identify a
14 publication where you have cited to a blog post?

15 A A publication that I have cited a blog
16 post of my own publications. That's the question?

17 Q Correct.

18 A Not that I can recall.

19 Q And you testified earlier that you
20 received the Lesniak reference from counsel.

21 Prior to when you received it from
22 counsel, had you ever cited to or relied on

1 Lesniak throughout your work?

2 A At this moment, I don't know whether I
3 have seen Lesniak because, as you know from my CV,
4 that I -- I have -- being a formulator for skin
5 products and also pharmaceutical consumer care
6 across the board, I have been in so many areas
7 that, you know, I -- I don't memorize that.

8 It may have been a reference. I mean,
9 it's out there. And, again, when you do your
10 searches as a person of ordinary skill in the art,
11 you get all of them, everything that's reliable in
12 a search in. And you read all of the science out
13 there. So I may have, but I don't specifically
14 recall right now when and where and...

15 Q As you sit here today, you can't identify
16 any publication that cited Lesniak; is that
17 correct?

18 MR. OLIVER: Objection, form.

19 A When you say any publication --

20 Q Any of your publications, sorry.

21 A Sorry?

22 Q Any of your publications.

1 A My publications where I have cited
2 Lesniak?

3 You know, I've got over 200. I -- I don't
4 know. I don't recall. I may not have. I may
5 have. I -- I -- sorry.

6 Q And you testified earlier that you
7 received the Phinney reference from counsel.

8 So same question: Prior to when you
9 received it from counsel, had you ever cited or
10 relied on Phinney throughout your work?

11 A Very similar answer. I -- don't recall.

12 Q So can you identify, as you sit here
13 today, any of your publications that have cited
14 Phinney?

15 A No, I'm -- I don't recall.

16 Q And for Bianchi '518, you testified that
17 you also received that one from counsel.

18 Prior to receiving it from counsel, had
19 you ever cited to or relied on Bianchi '518
20 throughout your work?

21 A I had -- I -- again, I've been in this
22 area for over 40 years. I may have because you

1 said cited. That at least can -- we can look for
2 it whether I cited.

3 Whether I have relied, possibly --
4 probably, but I don't recall.

5 Q And the same question with Bianchi '254, I
6 think -- prior to when you received that one from
7 counsel, had you ever cited to or relied on
8 Bianchi '254 throughout your work?

9 A Again, at this stage, same answer, sorry.
10 I may have. I don't recall, but it was in -- in
11 the references available to me even.

12 Q So with respect to all of these --
13 Lesniak, Phinney and the two Bianchis -- you can't
14 say, as you sit here right now, that you have ever
15 cited or relied on them, correct?

16 A I cannot say definitely if I have ever
17 cited them because I have cited so many
18 references. And relied is such a general word.
19 You know, when you do searches, so many things
20 come through. And you read, and depending on what
21 I was searching on, I may have come across them.
22 But you know, I can't remember the last 40 years,

1 goodness. But they were out there, obviously.

2 MS. HARTENSTEIN: Okay. I think that's
3 all I have for questions.

4 MR. OLIVER: I have no questions for the
5 witness.

6 (Proceedings concluded at 1:50 p.m. EST.)

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC.

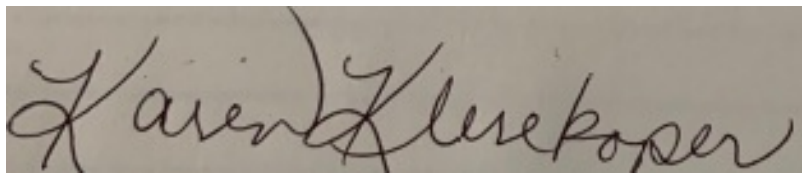
2 I, Karen Klerekoper, Certified
3 Reporter and Notary Public within and for the
4 State of Massachusetts do hereby certify: That DR.
5 MICHNIAK-KOHN, the witness whose deposition is
6 hereinbefore set forth, was duly sworn by me
before the commencement of such deposition and
that such deposition was taken before me and is a
true record of the testimony given by such
witness.

7 I further certify that the adverse party,
8 DR. SQUATCH LLC, was represented by counsel at the
deposition.

9 I further certify that the deposition of
10 DR. MICHNIAK-KOHN, occurred virtually on Thursday,
11 April 17, 2025, commencing at 9:08 a.m. EST, to
12 1:50 p.m. EST.

13 I further certify the inspection, reading
14 and signing of said deposition was waived on the
15 record by agreement of all parties. I further
16 certify that I am not related to any of the
17 parties to this action by blood or marriage, I am
18 not employed by or an attorney to any of the
19 parties to this action, and that I am in no way
20 interested, financially or otherwise, in the
21 outcome of this matter.

22 IN WITNESS WHEREOF, I have hereunto set my
hand this 17th day of April, 2025.



My commission expires: 12/4/31

County of Suffolk

Notary public in and for the State of

Massachusetts

A			
a-h 99:8 aazg 108:11, 108:13 able 26:22, 27:1, 27:2, 53:14, 90:3, 106:3, 115:3, 121:22 about 7:3, 11:1, 11:11, 13:21, 22:22, 24:21, 25:11, 25:13, 26:2, 28:13, 28:22, 35:6, 37:12, 37:20, 40:21, 46:22, 50:8, 51:22, 52:4, 53:7, 54:5, 56:1, 57:16, 60:17, 60:19, 60:21, 61:1, 61:8, 61:15, 62:11, 68:1, 68:6, 70:3, 70:8, 70:9, 72:3, 72:20, 74:4, 75:6, 75:11, 76:14, 78:9, 78:11, 78:20, 79:11, 81:17, 82:2, 82:6, 82:12, 82:14, 86:7, 88:3, 88:4, 90:1, 91:1, 92:4, 92:12, 93:8, 93:9, 93:20, 95:1, 99:18, 103:3, 105:8, 106:3, 106:8, 107:8, 107:22, 109:9, 109:16, 110:2, 110:3,	110:13, 114:17, 115:8, 115:10, 117:4, 121:6, 121:7, 122:21, 123:22, 124:3, 124:6, 124:10, 125:13, 125:18, 125:19, 125:20, 125:22, 126:10, 126:13, 127:22, 128:4, 128:6, 128:13, 128:17, 129:22 absence 107:22 absent 6:19 absolute 29:11, 97:10 absolutely 90:2 abstract 85:11, 85:18 abstracts 34:6 acceptable 95:8 acceptance 80:15, 95:3 accidentally 129:20 according 105:5, 110:21 accordingly 67:15 accurate 11:8, 11:21, 29:1, 33:22 achieve 93:20 across 34:17, 41:14, 131:6, 133:21 action 36:14, 37:1, 37:11, 52:15, 102:19, 135:22, 135:24	actions 62:19 active 62:18, 68:1 activity 125:20 actual 68:7, 89:9 actually 91:13, 126:7, 126:16, 128:21 add 107:19, 107:20 added 34:7, 120:20, 121:2 adding 121:8 addition 73:22, 74:6, 74:10 additional 10:15, 89:2 adds 89:2, 119:21 adjust 47:8, 67:14 adverse 135:11 affect 69:22, 70:5 affected 70:12 affecting 95:3 affidavit 4:17, 4:18, 111:7, 111:10 after 23:11, 26:21, 27:1, 28:1, 28:8, 28:12, 28:18, 43:4, 48:8, 49:18, 50:7, 60:11, 105:9, 107:18 afterwards 26:4	again 21:21, 27:19, 32:13, 32:20, 33:11, 41:2, 41:11, 43:9, 49:4, 49:9, 50:1, 50:2, 60:12, 65:14, 66:16, 73:14, 77:7, 77:20, 78:17, 79:22, 81:22, 86:7, 91:9, 96:5, 97:1, 97:2, 102:16, 102:19, 107:6, 115:17, 117:7, 117:21, 131:9, 132:21, 133:9 agent 84:18, 84:22, 85:8, 85:21, 86:8, 87:3, 87:10, 87:14 ago 12:5, 27:14 agree 34:16, 63:7, 63:12, 69:21, 70:5, 70:11, 73:11, 76:22, 78:7, 78:13, 101:19, 110:15, 115:21, 116:17 agreed 5:2, 26:5 agreement 6:19, 6:21, 135:20 alcohol 45:19, 69:16, 105:13, 106:8, 107:8, 107:22, 112:15 alcohols 45:16 all 8:9, 8:11,

8:13, 8:16, 9:1, 9:2, 12:1, 12:2, 12:6, 14:10, 15:14, 18:6, 20:18, 23:4, 24:6, 24:21, 27:10, 28:13, 31:6, 32:11, 33:6, 34:17, 36:10, 41:14, 41:16, 41:18, 44:15, 47:4, 50:8, 58:15, 60:17, 62:10, 64:17, 65:2, 65:9, 65:11, 65:17, 75:5, 76:9, 79:20, 80:7, 81:10, 85:20, 87:17, 88:18, 98:11, 98:12, 98:18, 98:22, 101:7, 101:15, 101:19, 101:20, 108:15, 108:21, 109:2, 110:21, 114:17, 114:22, 131:11, 131:12, 133:12, 134:3, 135:20 allowed 37:7 alone 89:6 already 5:22, 27:22, 72:7, 76:14, 76:21, 84:9, 87:7, 107:21, 122:17 also 3:20, 7:18, 8:2, 10:8, 12:5, 13:20, 16:19, 21:11, 22:16, 27:3, 32:2, 33:20, 35:14, 36:20, 37:10,	45:21, 49:2, 50:3, 52:20, 53:8, 54:7, 55:14, 56:1, 58:3, 60:7, 60:8, 62:7, 63:8, 63:12, 64:20, 64:22, 71:17, 74:4, 74:20, 78:18, 83:9, 83:10, 84:17, 85:6, 86:17, 87:13, 87:17, 88:10, 88:15, 88:21, 90:22, 100:8, 100:15, 101:15, 102:17, 108:21, 109:16, 112:20, 115:2, 131:5, 132:17 aluminum 36:8, 36:10, 99:14, 100:4, 100:16, 101:1, 101:7, 101:16, 103:5, 108:13, 108:22, 113:19, 113:20, 117:5, 117:9 aluminum-contain- ing 35:18 aluminum-free 119:17 always 34:5, 89:2, 89:13 amazon 129:14 amount 54:13, 69:8, 91:5, 91:21 amounts 38:8, 83:2, 98:12, 98:19, 114:9, 115:2 analyze 43:2	analyzer 75:22 andrea 3:13 anhydrous 42:4, 43:4, 43:14, 52:1, 90:12, 103:13 another 44:2, 64:2, 87:16, 88:1, 88:9, 88:15, 89:16, 99:4, 104:22, 118:17, 118:20 answer 9:17, 9:21, 9:22, 10:20, 40:18, 50:21, 132:11, 133:9 answering 116:11 answers 10:9, 51:14 antibacterial 125:20 antimicrobial 35:16, 52:15, 53:9, 54:2, 62:17, 62:22, 63:3, 63:5, 63:16, 63:19, 64:3, 66:17, 89:3, 89:11, 113:7, 125:10, 126:13 antimicrobials 52:7, 52:10, 52:20, 53:1, 53:16, 53:19, 54:5, 54:11, 54:14, 63:22, 86:17, 88:19, 113:13 antioxidant 128:4 antiperspirant 35:7, 35:8,	35:20, 36:5, 36:7, 59:9, 59:13, 59:20, 60:3, 60:8, 60:13, 60:15, 61:3, 61:12, 61:22, 62:2, 62:4, 62:6, 63:6, 78:9, 78:15, 94:21, 95:4, 95:11, 104:14, 108:5, 109:12, 125:13, 125:18 antiperspirants 12:15, 34:11, 35:4, 35:6, 35:13, 35:15, 35:18, 36:15, 36:22, 37:4, 37:9, 37:18, 52:19, 60:18, 60:20, 61:8, 95:18, 99:22, 126:3, 127:1, 128:17, 128:18 any 6:17, 6:22, 7:14, 8:21, 10:4, 10:14, 11:7, 12:13, 19:15, 19:21, 23:16, 26:13, 27:6, 31:9, 34:10, 36:8, 40:13, 41:3, 44:5, 45:11, 46:2, 50:10, 53:21, 63:15, 63:18, 63:21, 64:1, 66:21, 74:20, 82:21, 86:22, 93:19, 94:5, 94:15, 96:8, 96:20, 98:2, 107:15, 109:11, 113:12, 113:16, 113:21,
--	--	--	---

115:10, 121:6, 125:13, 125:17, 126:6, 127:21, 128:16, 128:20, 129:22, 130:8, 131:16, 131:19, 131:20, 131:22, 132:13, 135:21, 135:23 anyone 29:17, 29:20, 32:5, 97:7 anything 19:20, 47:20, 48:1, 48:12, 48:16, 50:20, 81:17, 82:2, 106:3, 124:16, 128:12, 130:9 anyway 128:6 anywhere 76:2, 109:14 ap 106:18 apart 32:4, 48:1, 49:13, 107:20 apologies 31:20, 122:3 apparently 65:10, 71:9, 72:16 appeal 1:3 appear 61:14 appears 61:16, 61:20, 96:17 application 34:21 applications 79:21 appreciate 50:19 approach 25:5	appropriate 26:1, 46:11, 46:14, 46:19 approximately 10:14, 38:15 april 1:15, 27:15, 27:20, 28:1, 28:9, 28:18, 28:22, 47:16, 51:8, 122:15, 135:28 aps 106:22 area 53:12, 53:13, 53:15, 114:21, 132:22 areas 131:6 aren't 23:17 arena 130:8 argument 97:14 arguments 82:22, 112:15, 115:6 around 11:22, 75:15, 91:17, 99:16, 128:7 arpril 135:16 arrowroot 45:21, 112:18, 119:21, 120:20, 121:2 art 21:17, 25:13, 26:13, 58:15, 62:8, 68:8, 81:9, 95:21, 107:12, 114:21, 115:7, 123:9, 125:6, 130:1, 131:10	aside 24:2, 66:13, 78:20 asked 57:2, 57:5, 57:7, 78:3, 128:9, 130:11 asking 9:11, 50:12, 61:13, 61:15, 61:16, 68:6, 78:9, 78:11, 78:20, 94:13, 97:12, 115:7, 115:13, 116:8 associated 85:1, 86:13 assume 9:16, 40:19 assumes 57:8 assuming 81:20 astrigent 53:11, 63:6 attached 4:8 attention 111:18 attorney 5:20, 7:22, 8:3, 8:4, 135:23 attorneys 29:18 available 89:13, 105:13, 133:11 avenue 3:7 avoid 10:8 aware 19:15, 19:19, 31:10, 34:4, 37:7, 46:3, 57:14 azg 99:12, 99:13,	99:14, 99:18, 100:1, 100:9 B b-o-z-e-n-a 5:13 bachelor's 39:8 back 11:3, 20:2, 21:17, 27:4, 37:21, 37:22, 40:18, 47:6, 51:18, 90:7 background 23:19, 25:11, 34:14, 34:16, 40:11, 41:2, 41:13, 41:17, 92:5 backs 38:6 backup 6:16, 6:22 bacteria 125:21 bactericidal 85:8 bad 48:19, 117:10 baking 53:3, 53:22, 64:4, 103:3, 103:7, 109:7, 113:10 ballpark 30:11 balm 60:9, 60:16 balms 78:18 barrel 77:9, 77:16 base 119:18, 120:2, 120:7 based 56:15, 80:4,
---	--	---	--

112:17, 127:19 basically 25:21 because 8:2, 30:1, 34:5, 57:7, 60:20, 63:6, 65:9, 66:17, 67:13, 68:1, 77:15, 89:8, 90:13, 92:6, 94:4, 95:15, 114:22, 128:6, 129:20, 131:3, 132:22, 133:17 beecham 38:2 been 5:4, 11:20, 27:2, 29:12, 46:21, 77:8, 77:21, 85:10, 127:18, 128:7, 131:6, 131:8, 132:21 beeswax 69:2 before 1:3, 2:8, 6:13, 6:14, 9:11, 10:20, 29:13, 35:2, 35:7, 41:18, 47:14, 102:12, 113:5, 117:22, 135:7, 135:8 beginning 50:2, 92:4 behalf 3:3, 3:11, 5:21 behind 56:16 being 19:21, 62:20, 72:22, 80:5, 116:14, 122:3, 126:7, 126:16, 126:22, 128:21,	131:4 believe 12:16, 13:17, 21:13, 27:14, 27:20, 40:13, 41:3, 41:8, 44:22, 45:14, 48:16, 54:20, 55:11, 57:19, 60:4, 62:14, 63:20, 64:6, 65:1, 69:20, 73:18, 74:18, 76:4, 76:7, 80:19, 83:9, 84:1, 84:13, 84:20, 90:13, 92:10, 93:5, 93:18, 97:3, 100:17, 101:9, 103:2, 103:4, 103:18, 107:3, 108:14, 109:6, 110:5, 113:14, 113:18, 119:13, 121:5, 123:14, 124:4, 124:12, 125:19, 127:4 below 95:2 benefit 10:2 benefits 128:14 besides 29:17, 53:22 best 28:15, 48:18 between 28:19, 28:22, 48:20, 50:2, 69:14, 80:10, 83:5, 83:12, 83:15, 96:8, 96:20, 97:11, 98:9, 98:10, 106:4, 107:15 bianchi 4:15, 4:16,	21:19, 22:10, 22:16, 40:21, 40:22, 55:3, 55:7, 55:19, 56:21, 92:8, 92:12, 92:18, 92:20, 93:2, 93:19, 94:11, 94:16, 95:12, 96:7, 96:22, 99:5, 100:19, 101:22, 102:9, 102:22, 103:10, 103:13, 103:17, 103:22, 104:3, 104:6, 104:7, 105:21, 107:4, 107:17, 109:4, 109:11, 110:10, 132:16, 132:19, 133:5, 133:8 bianchi's 93:16, 94:10 bianchis 133:13 bicarbonate 53:4, 123:19 bit 66:2, 75:11, 106:7, 110:3 blog 119:11, 129:7, 130:12, 130:14, 130:15 blood 135:22 bo 5:12, 5:13 board 1:3, 131:6 book 21:11, 21:13 both 5:14, 5:16, 6:20, 12:12, 12:13, 40:22 bottom 14:11, 16:16,	19:6, 101:11, 112:12, 119:15, 126:10 bought 120:10, 121:1 bozena 1:13, 2:1, 4:3, 5:4, 6:3 break 7:3, 10:15, 10:19, 10:21, 11:3, 30:12, 30:17, 47:1, 47:21, 48:13, 50:20, 51:13, 89:16, 89:22, 118:19, 121:16, 122:1, 122:8 breaks 10:12, 10:13, 11:2 brunswick 6:9 buckets 44:9 bulk 71:12, 71:18 buying 80:15 C c-a-i-x-e-i-r-o 8:5 caixeiro 3:5, 8:5 calabro 31:22, 32:1 calcium 54:6, 54:8 call 13:3, 13:7, 13:11, 14:21, 16:9, 17:15, 18:21, 32:22, 41:7 calling 5:17 calls 32:15, 32:18
---	--	--	---

came 28:20, 43:5, 43:10, 105:11 can't 6:18, 10:19, 11:7, 28:5, 30:1, 30:11, 30:14, 43:3, 65:18, 68:10, 77:14, 131:15, 133:13, 133:22 cannot 11:2, 133:16 carbonate 54:6, 54:8 care 63:11, 79:17, 130:7, 131:5 carrier 43:16, 43:22, 44:3, 44:11, 44:18, 46:6, 52:4, 65:22, 102:11, 102:16, 113:4 carriers 42:19, 43:1, 43:19, 44:5, 46:14 case 30:9, 72:16, 115:17 cases 12:1, 12:2, 12:3, 12:5, 12:7, 12:9, 80:13, 86:20, 96:18 castorwax 69:15 categories 43:13 causes 46:7 certain 27:3, 42:11, 60:14, 62:1, 72:17, 106:10	certainly 66:7, 130:6, 130:8 certificate 135:1 certified 135:2 certify 135:4, 135:11, 135:14, 135:18, 135:21 cetera 38:8, 38:9, 130:10 cetyl 69:16 chain 45:16 challenger 12:11 chance 56:20 change 70:11 changed 19:21, 20:1 changes 34:8, 34:9, 34:10, 69:21, 70:5, 72:17, 107:20 check 57:8, 74:14, 128:8 checking 38:7, 38:8 chemical 39:10 chemistry 39:9 chloride 84:18, 86:9, 88:6, 88:12, 88:17, 89:1 choice 50:17 cinnamon 125:10, 126:7,	126:11, 126:15 circle 90:7 cite 129:7, 130:11 cited 130:14, 130:15, 130:22, 131:16, 132:1, 132:9, 132:13, 132:19, 133:1, 133:2, 133:7, 133:15, 133:17 citing 55:3 citric 54:10 claim 91:6 claimed 55:9, 56:11, 57:1, 77:19 claims 82:10, 82:12, 88:20, 88:21, 90:14 clarification 9:15 clarify 9:13, 31:15, 49:19, 114:15 class 126:22 classes 129:11 clean 8:9, 8:14, 9:2, 9:8 cleanup 47:13 clear 6:20, 7:2 close 118:7 closer 67:7 coffer 128:15	column 54:4, 59:14, 59:16, 60:3, 64:11, 71:15, 73:8, 73:20, 74:3, 74:7, 74:8, 75:15, 75:16, 83:8, 83:9, 84:6, 85:6, 86:4, 87:7, 87:8, 87:9, 87:12, 87:19, 87:20, 87:22, 88:9, 88:14, 90:17, 90:20, 91:1, 91:9, 91:13, 91:16, 93:5, 94:19, 99:7, 99:16, 99:21, 100:8, 101:11, 101:12, 102:2, 102:4 columns 96:1 combination 25:9, 46:13, 46:18, 50:10, 72:20, 85:3, 85:12, 85:22, 89:9, 96:2, 98:10 combinations 25:3, 25:4, 25:6, 25:18, 26:4, 26:7, 26:17, 27:7, 27:11, 28:4, 28:17, 29:6, 48:6, 49:7, 49:21, 50:7, 50:14, 122:18 come 7:17, 11:3, 26:17, 27:6, 38:3, 40:4, 115:4, 133:20, 133:21
---	--	--	--

comes 47:10 coming 47:7 commencement 135:7 commencing 135:16 comment 40:19, 43:3 commercially 105:13 commission 135:32 commonly 54:18, 85:20 companies 35:14, 36:21, 37:3, 37:5 company 1:9, 38:11 comparable 39:11, 39:13 compared 105:12 comparing 106:14 complete 11:8, 20:11, 20:12, 20:19, 20:20, 33:22, 34:2 complex 100:22, 101:1 complexes 103:5, 103:6 complicated 35:9 component 45:11 components 91:1 composition 59:20, 60:8, 60:12, 60:15, 62:6, 68:17, 69:5, 69:7, 69:11, 69:12,	69:15, 69:16, 70:1, 70:2, 70:8, 70:22, 71:5, 71:12, 71:17, 72:2, 72:4, 72:8, 72:11, 72:12, 73:11, 73:12, 73:21, 88:15, 95:17, 98:4, 98:15, 103:13, 124:14 compositions 34:20, 40:10, 61:1, 62:10, 64:15, 64:17, 64:21, 65:3, 65:5, 65:9, 66:6, 66:14, 68:14, 70:4, 70:9, 70:10, 70:13, 71:3, 71:7, 71:21, 75:5, 81:18, 82:3, 82:8, 83:4, 87:1, 89:4, 90:11, 91:21, 93:7, 94:20, 94:21, 95:9, 95:11, 95:13, 95:22, 99:6, 102:1, 102:6, 102:10, 103:1, 103:11, 104:15, 105:1, 108:1, 109:4 compound 64:2, 64:3, 100:16, 100:20 compounds 52:14, 54:16, 63:10, 99:18, 100:1 comprises 88:10 comprising 86:8 concentrates 64:8, 103:4	concerned 61:4 concerning 10:12, 15:4, 16:13, 17:19, 19:3 concluded 134:6 conclusions 26:1, 26:22 conducted 1:14, 2:2, 37:17 confidential 37:6 confirming 82:1, 82:4 consider 23:16, 40:9, 40:16, 41:1, 42:18, 42:22 constantly 61:1 consulted 29:15 consumer 37:13, 37:15, 37:17, 38:1, 38:17, 66:16, 80:15, 95:3, 95:9, 130:8, 131:5 consumers 117:3, 129:16, 130:10 contacted 27:12 contain 36:8, 36:10, 62:10, 66:22, 74:13, 74:16, 74:20, 84:17, 87:1, 89:5, 99:11, 100:9, 100:12, 101:7, 101:15, 101:20, 102:1, 102:6, 108:10, 108:15,	108:21, 109:2, 113:21, 113:22 containing 15:3, 42:6, 105:13 contains 75:7, 87:13, 88:15, 113:7 continued 50:8 continues 101:12 contribute 94:3, 94:7, 94:12, 94:16, 95:13, 95:21, 96:4, 97:9, 98:1, 98:6, 99:2, 105:22 contributes 98:10 controlling 85:9 convenient 66:19 conversations 51:2 conversion 57:2, 57:4, 57:5, 77:11, 78:1, 78:3 conversions 55:17, 56:14 convert 57:12, 78:2 converted 57:3, 57:6 copies 8:9, 8:14, 9:2, 9:8, 29:10 copy 8:11, 8:13, 13:20 corner 118:5 corners 115:9, 116:3 correction 5:11
---	--	---	--

correctly 32:1 correlates 97:1 correlation 96:8, 96:20, 97:15, 106:4, 107:15 correspond 105:17, 110:6 cosmeceuticals 128:2 cosmetic 21:14, 78:7, 78:11, 79:15, 79:18, 126:12, 126:19, 126:21, 128:3, 128:13 cosmetics 21:13, 39:12 cough 127:2 could 21:21, 30:3, 31:15, 49:17, 53:17, 54:17, 56:20, 57:3, 57:6, 63:17, 66:13, 66:18, 73:21, 74:10, 81:22, 87:6, 114:15, 115:18 counsel 3:22, 5:2, 6:10, 7:8, 8:15, 9:19, 9:20, 11:2, 11:5, 20:22, 22:3, 22:8, 22:11, 22:14, 22:17, 22:20, 23:2, 23:5, 24:18, 24:20, 25:18, 26:2, 27:8, 27:16, 28:1, 31:11, 31:14, 31:16, 32:7, 32:9, 32:12,	40:5, 49:7, 50:7, 89:22, 122:16, 130:20, 130:22, 132:7, 132:9, 132:17, 132:18, 133:7, 135:12 counter 129:15 counts 23:22 county 135:33 couple 64:20 course 31:1, 86:18, 95:22, 128:5 court 7:1, 10:2, 14:4, 58:9 cream 63:13, 66:14, 66:18, 79:13 creams 74:5, 74:9, 74:19, 79:11 create 99:4 creating 75:8, 107:1 criticisms 116:18 crosstalk 58:8, 91:12, 96:6, 117:13 crystalline 45:7 csr 1:22 currently 6:4 customer 118:4 cv 33:17, 33:22, 34:2, 34:3, 34:5, 131:3	cvs 40:19 cyclomethicone 102:14 D date 28:6, 28:20, 29:22, 34:2, 47:18, 50:11, 50:12, 51:7, 51:8, 51:16, 90:4, 122:19 dated 122:15 dates 23:10, 23:15, 32:13, 48:17, 49:4 day 3:14, 5:20, 33:6, 135:28 days 130:3 dc 3:8 decide 25:3 declaration 4:9, 4:10, 4:11, 4:12, 13:19, 13:22, 14:1, 14:9, 14:15, 15:2, 15:15, 15:20, 15:21, 16:3, 16:12, 17:1, 17:5, 17:6, 17:10, 17:18, 18:7, 18:10, 18:11, 18:15, 19:2, 20:2, 24:8, 28:20, 33:8, 33:14, 34:15, 38:21, 39:3, 41:12, 48:21, 50:3, 51:18, 82:21,	111:22 declarations 8:10, 8:13, 12:18, 19:12, 19:16, 19:22, 20:15, 23:18, 24:16, 26:11, 29:19, 29:22, 31:2, 34:1, 55:19, 59:8, 104:4, 111:15 decreases 53:13 deficiencies 63:15, 63:18 defined 100:18 definitely 77:8, 133:16 definition 39:2, 39:5, 39:19, 40:1, 40:4, 79:13, 96:3, 99:19 definitive 50:21, 51:13 degree 39:8 deliveries 129:10 delivery 61:4, 66:9, 80:7 deodorant 35:2, 35:5, 35:8, 35:12, 35:19, 35:22, 36:2, 36:7, 41:22, 53:17, 54:2, 58:19, 59:6, 61:3, 62:15, 62:22, 63:3, 65:19, 66:10, 66:15, 66:19, 78:10, 79:1, 79:4, 79:8, 79:12, 80:12, 81:13,
--	---	---	---

88:4, 90:14, 112:2, 116:14, 116:18, 119:15, 119:18, 120:2, 120:6, 121:1, 123:20, 125:13, 125:18, 126:2, 126:8, 126:16, 126:18, 127:22, 128:9, 128:11, 128:22, 129:1 deodorants 12:14, 34:10, 35:3, 35:15, 35:16, 36:15, 36:22, 37:4, 37:9, 37:18, 52:18, 54:15, 54:18, 56:18, 58:22, 59:7, 65:3, 65:13, 66:21, 120:11, 125:22, 127:1, 128:14 depend 79:9, 102:19 depending 44:11, 80:13, 129:19, 133:20 depends 66:16, 70:2, 70:7, 72:19, 98:11, 98:18 depos 3:21 deposed 11:20 deposition 1:13, 2:1, 7:1, 9:18, 11:17, 12:17, 14:7, 14:13, 15:18, 17:3, 20:3, 30:20, 31:12, 33:11, 51:19, 58:10, 80:22, 92:16, 103:20, 111:5, 123:4,	135:5, 135:7, 135:8, 135:13, 135:14, 135:19 depositions 11:19, 11:22 dermatologist 124:8 described 40:10 designing 130:6 desirable 104:14 destroy 84:22 destroying 86:12 destroys 85:14, 86:1 detail 29:11, 51:3, 51:6 details 115:11 determine 121:22 diagram 114:10 diaper 63:13, 74:19, 79:11 difference 69:14, 69:19, 72:13 different 24:11, 43:13, 44:12, 51:22, 55:15, 55:16, 56:2, 68:2, 68:3, 77:1, 77:3, 78:7, 78:8, 80:4, 99:22, 107:1, 126:20 differently 106:18 difficult 77:12, 115:19	dimethicone 102:15 dimethyl 54:9 direct 83:8, 96:8, 96:19, 97:15, 107:14 disagree 61:10 disclose 37:7, 55:9, 55:13, 55:21, 55:22, 56:16, 63:21, 64:4, 64:7, 64:18, 67:11, 67:18, 81:17, 82:2, 82:9, 84:11, 86:22, 91:17, 102:22, 103:10, 107:4, 109:4, 109:11, 125:12 disclosed 77:5, 89:5, 91:21, 93:2, 122:17 discloses 55:14, 56:11, 56:17, 58:19, 59:9, 62:16, 63:4, 68:9, 75:7, 81:13, 83:4, 115:8, 125:10 disclosure 56:7, 91:1, 94:11, 104:8, 106:1, 107:17, 124:13, 124:16, 126:6, 126:15, 127:14, 128:20 disclosures 59:12, 68:7, 93:20 discuss 11:2, 28:3, 41:22, 43:12,	48:1, 81:20, 82:20 discussed 11:4, 24:20, 25:4, 25:7, 26:4, 27:9, 27:22, 28:16, 29:6, 29:11, 47:14, 47:20, 48:5, 49:7, 49:17, 50:6, 50:10, 50:13, 51:2, 61:18, 68:13, 69:9, 76:21, 84:9, 89:7, 90:22, 92:4, 102:11, 110:7, 113:4 discusses 93:22, 94:18, 99:22, 128:2 discussing 8:18, 27:10, 58:16, 81:10, 123:10 discussion 8:12, 34:14, 40:5, 93:16, 94:11, 94:13, 94:14, 95:7, 114:2, 114:4, 114:13, 114:16, 114:18, 121:10, 121:12, 121:13, 121:14, 125:13, 125:17, 125:22, 126:3, 127:21, 128:13, 128:16 discussions 24:21, 25:10, 25:11, 26:1, 26:19, 26:21, 27:1, 28:7, 28:13, 48:14, 49:8, 49:11, 49:15, 50:4, 50:8, 107:21 disinfectant 85:5, 85:14,
---	---	---	--

86:1, 86:8, 87:3 disinfecting 84:18, 84:22, 85:21, 87:10, 87:14 dispensing 77:9, 77:16 doctoral 37:22 document 3:21, 58:4, 81:3, 94:17, 96:15, 106:2, 107:5, 113:17, 120:4, 121:4, 125:15, 128:1 documents 8:6, 8:8, 8:20, 30:22, 31:9 doing 49:15, 66:2, 81:21 done 122:20 door 6:8 dosage 61:4, 68:4, 98:4, 98:21 down 15:6, 19:6, 70:15, 88:20, 90:3, 99:7, 120:19 dr 1:6, 1:13, 2:1, 3:22, 4:3, 5:4, 5:8, 5:15, 6:3, 20:22, 24:18, 29:13, 29:15, 31:19, 57:21, 122:16, 135:4, 135:12, 135:15 draw 111:17 drug 129:10 drugs 115:20	drying 53:13 dryness 53:12 dual 102:18 duly 5:4, 135:6 during 9:18, 11:2, 47:21, 50:3 E each 10:5, 25:12, 32:18, 65:20, 70:22, 71:17, 80:4, 88:20, 99:11, 108:10, 115:2 earlier 23:14, 130:19, 132:6 early 42:13 easy 22:19, 119:2, 119:9 edition 21:16 education 39:15 effect 84:1, 86:21 effects 126:11 either 9:6, 11:17, 67:21, 71:1, 88:22 electronic 8:9, 9:5 elements 89:6 else 29:20, 32:5, 122:4 embodiment 74:9, 88:1,	88:9, 104:13, 104:22 embodiments 60:14, 60:21, 62:1, 76:8 emollient 128:4 employed 135:23 encompassed 39:7 end 15:7, 18:1, 65:6, 66:9, 80:6 ending 66:1 engagement 51:9, 51:15, 51:16, 122:10, 122:14 engagements 48:20 engineering 39:10 england 38:1, 38:3 entire 94:5, 94:8, 98:4 entirety 15:3, 16:13, 17:19, 19:3 erika 3:22 especially 10:3 esquire 3:4, 3:5, 3:12, 3:13 essential 46:18, 126:14, 126:16 est 1:16, 134:6, 135:16, 135:17 established 129:2 esters 43:21	estimate 28:15, 28:16, 29:2, 30:3, 30:11, 32:19, 48:18, 48:19 et 38:8, 38:9, 130:10 even 30:1, 51:7, 51:8, 66:14, 69:21, 90:14, 105:8, 125:21, 128:3, 133:11 ever 11:16, 12:13, 29:12, 29:15, 37:17, 130:22, 132:9, 132:19, 133:7, 133:14, 133:16 every 10:14 everyone 89:19 everything 25:1, 25:15, 27:9, 122:4, 131:11 exact 40:11, 43:9, 47:18, 48:17, 49:4, 49:13, 50:1, 50:11, 50:12, 51:16 exactly 27:14, 28:19, 98:20 examination 4:4, 5:6 example 25:17, 45:10, 54:4, 64:5, 68:17, 74:1, 76:13, 76:14, 76:15, 78:14, 79:1, 94:3, 96:14, 99:8,
---	---	--	---

106:19, 109:13, 114:19 examples 43:18, 44:20, 52:22, 53:21, 73:10, 75:9, 79:16, 80:2, 87:5, 95:16, 99:11, 100:7, 101:6, 101:10, 101:19, 108:10 exceeded 40:3 excellent 94:21, 95:11, 95:18 exception 10:18 excipient 97:20, 107:10, 126:14 excipients 70:3, 72:21, 96:3, 99:1, 99:2 excuse 29:4 exhibit 4:7, 4:9, 4:10, 4:11, 4:12, 4:13, 4:14, 4:15, 4:16, 4:17, 4:18, 4:19, 4:20, 13:17, 14:7, 14:8, 14:11, 14:13, 14:14, 15:18, 15:19, 17:3, 17:4, 18:8, 18:9, 20:3, 21:22, 22:5, 33:11, 33:17, 51:19, 55:4, 57:20, 57:22, 58:1, 58:10, 80:19, 80:22, 81:1, 81:3, 81:5, 92:10, 92:16,	92:17, 103:19, 103:20, 103:21, 111:3, 111:5, 111:8, 112:8, 123:2, 123:4, 123:5, 124:20, 124:22, 127:4, 127:7 exhibits 4:8, 8:10, 8:12, 8:16, 8:17, 21:8, 31:6, 111:6, 111:13 experience 23:21, 24:2, 27:4, 39:12, 39:14, 39:15 experimentation 115:3 expert 12:6, 34:20 expires 135:32 explains 84:21 explicit 96:8, 96:10, 96:19, 97:14 explicitly 55:9, 55:20, 60:17, 61:7, 81:17, 82:2 expressed 29:19 expressly 56:12, 73:12 extending 87:8 F face 118:11 facing 7:20 fact 85:9, 94:18, 94:22, 95:9,	114:10 factor 97:5 facts 11:11 fail 71:1, 71:18 failed 71:7, 71:10, 71:21 failing 71:11 fails 70:17 fair 29:2 fairly 52:17 far 23:14, 37:6, 50:9, 61:3, 105:19 fast 91:11 faster 21:9 fatty 45:16 feel 129:18 few 9:10, 43:13, 43:18, 47:13, 80:1, 87:5 field 24:2, 34:20, 39:11, 100:21 figure 49:20 final 65:14, 98:4, 98:14, 98:21, 98:22 financially 135:25 find 67:10, 67:17, 106:3	fine 6:16, 13:12, 32:19, 47:3, 67:7, 90:7 finish 90:8 first 5:12, 13:17, 27:12, 28:3, 28:16, 29:6, 42:1, 42:3, 42:10, 48:5, 48:20, 49:5, 49:10, 49:11, 49:20, 50:6, 50:13, 59:12, 85:18, 87:6, 91:7, 99:8, 112:21 fit 40:1 five 47:2, 117:18, 117:19, 118:7 follows 5:5, 129:11 forewarning 47:10 forgotten 31:21 form 9:5, 24:19, 44:2, 46:11, 61:2, 61:4, 65:5, 65:21, 66:9, 66:14, 73:13, 82:10, 82:16, 82:17, 90:15, 98:4, 98:21, 102:13, 129:9, 131:18 format 61:2 formed 56:19, 57:9, 65:16, 73:21, 76:9, 77:15, 102:18
---	--	--	---

forming 20:8, 23:17, 74:4 forms 46:17, 68:4, 82:12, 114:10 formula 65:15, 67:15, 110:22 formulas 42:17, 43:2, 58:22, 110:22 formulate 114:18 formulated 35:1, 35:4, 35:7, 36:2, 36:4, 106:15 formulates 73:11 formulating 34:20, 35:22, 39:12, 88:4, 114:4, 114:14 formulation 35:12, 36:13, 46:17, 65:5, 73:15, 75:2, 79:10, 80:14, 90:14, 90:16, 98:2, 98:6, 102:20, 106:9, 106:17, 106:22, 107:10, 110:19, 115:10, 115:18, 124:6, 129:19, 130:7 formulations 35:10, 38:4, 59:5, 63:11, 65:15, 65:16, 72:16, 72:18, 73:2, 76:10, 79:22, 81:14, 84:17, 85:19, 86:18, 94:1, 95:16, 102:20, 106:7, 106:9,	108:5, 108:7, 108:18, 109:10, 109:12, 110:2, 110:6, 110:11 formulator 68:2, 80:6, 89:14, 94:4, 98:2, 99:1, 114:21, 115:18, 116:7, 131:4 formulators 86:19 forth 15:2, 16:12, 17:18, 19:2, 135:6 found 21:8, 81:19 foundation 25:20, 79:21 four 8:13, 8:17, 12:19, 19:22, 29:22, 34:17, 41:14, 58:15, 69:4, 69:8, 81:10, 92:21, 115:9, 116:3, 123:10 frame 48:21 frank-white 4:17, 4:18 free 113:19, 113:20 front 14:2, 15:22, 17:6, 18:12, 33:9, 51:20, 67:9 full 5:12, 6:2, 8:12, 106:14, 112:10 further 135:11, 135:14, 135:18, 135:20 fyi 47:7	G gaining 43:7 gamble 1:9, 5:21 gave 26:3, 26:7, 42:8 gel 42:8, 42:21, 45:12, 92:3 gellants 45:8 gelled 66:7 gels 42:6, 42:10, 42:11, 42:13, 42:15, 42:18 general 3:22, 73:6, 80:9, 133:18 generally 26:9, 53:11, 78:12, 78:21, 79:8 generic 115:20 georgiou 3:22 getting 21:10, 64:13, 109:19 give 11:7, 26:6, 27:7, 28:15, 30:3, 30:11, 30:14, 43:18, 44:20, 45:11, 46:11, 48:17, 51:16, 52:22 given 10:4, 11:16, 12:13, 51:7, 106:10, 117:19, 135:9 gives 46:9, 46:14,	62:7, 75:9, 116:1 giving 80:1, 102:17 gleaning 50:15 glycerol 43:21 glycol 42:6, 42:8, 42:11, 42:15, 42:18, 42:19, 42:21, 42:22, 91:10, 91:14, 91:18, 92:3, 92:7 go 5:13, 5:14, 5:15, 5:16, 9:9, 15:14, 16:16, 17:22, 20:2, 21:3, 21:17, 24:6, 25:13, 33:13, 38:20, 51:18, 52:6, 53:20, 54:19, 68:12, 70:15, 71:15, 73:7, 76:13, 86:4, 99:16, 104:10, 105:19, 108:3, 116:21, 118:20, 119:2, 119:14, 122:5, 129:3, 129:20 goes 86:15 going 6:15, 7:18, 9:9, 9:11, 10:13, 11:4, 13:10, 13:17, 14:4, 15:12, 15:16, 34:13, 41:11, 46:21, 57:17, 58:5, 91:11, 118:17, 121:15
---	---	--	---

gone 96:17 good 5:8, 5:10, 10:6, 10:7, 46:22, 50:4, 50:17, 54:13, 56:19, 65:20, 89:16, 126:13 goodness 134:1 grams 75:19, 76:18, 77:18 grant 3:15 great 30:18, 51:13, 119:1 ground 9:10 grounds 24:12, 24:16, 24:19, 25:16, 25:18, 26:10 group 26:21 guess 11:12, 29:22, 30:1, 50:4, 79:9, 80:8, 89:8 guys 47:1, 118:18 H hand 96:21, 135:28 handbook 21:14 happen 34:7 happening 112:8 happy 118:20 hard 8:11, 8:13, 13:20, 27:10,	76:6, 82:7 harder 78:16, 79:1, 79:7, 80:13, 105:6, 105:16, 105:18, 110:22 hardness 46:12, 46:15, 46:19, 54:19, 55:10, 55:13, 55:14, 55:16, 55:21, 55:22, 56:1, 56:7, 56:16, 56:17, 57:9, 66:2, 75:12, 75:19, 76:3, 76:8, 76:18, 76:22, 77:1, 77:4, 77:18, 78:2, 78:19, 80:9, 81:18, 81:19, 81:21, 82:2, 82:5, 82:6, 82:11, 82:15, 82:21, 93:1, 93:8, 93:14, 93:17, 93:20, 94:3, 94:7, 94:12, 94:16, 95:1, 95:5, 95:8, 95:14, 95:19, 96:4, 96:9, 96:11, 96:16, 96:21, 97:4, 97:9, 97:16, 97:20, 98:1, 98:3, 98:6, 98:10, 98:13, 99:3, 104:8, 104:15, 105:1, 105:3, 105:6, 105:9, 105:22, 106:5, 106:10, 106:18, 107:1, 107:7, 107:9, 107:16, 107:18, 107:20,	110:11, 110:13, 110:14, 110:16, 110:18, 114:2, 114:12, 121:10, 121:12, 124:14 hardnesses 78:8, 98:21 hartenstein 3:12, 4:4, 5:7, 5:19, 7:5, 14:6, 14:10, 15:16, 16:22, 18:6, 46:21, 47:4, 47:11, 47:12, 57:17, 58:9, 80:17, 89:15, 89:21, 92:8, 92:15, 103:18, 111:4, 118:15, 119:1, 119:5, 121:15, 121:21, 123:1, 124:19, 125:1, 127:5, 129:3, 129:6, 134:2 head 10:9, 30:10, 30:14, 32:21, 44:7, 53:22, 67:1 headed 64:16 header 64:21 heads 73:14 heard 9:10 help 50:21, 99:17 helped 47:21, 48:13 helpful 50:22, 87:6, 102:3 here 5:20, 7:11, 19:20, 23:9,	25:17, 34:15, 34:16, 45:21, 46:3, 66:12, 75:18, 77:13, 80:2, 86:7, 95:16, 102:14, 110:4, 114:22, 116:10, 118:16, 130:13, 131:15, 132:12, 133:14 hereby 135:4 hereinbefore 135:6 hereunto 135:27 high 70:16, 70:20 higher 99:13 highest 110:16, 110:17 highlighting 9:5, 9:7 hold 27:3 homemade 22:19, 119:2, 119:9, 121:11 honestly 30:7, 30:16 hope 117:5 hot 48:2 hotel 47:8 hour 10:14, 33:2, 46:22, 89:15 hour-long 32:22 hours 29:21, 30:4, 30:8, 30:9, 30:15, 32:20, 33:3 hydroxide 53:5, 54:1,
---	--	---	--

64:7, 83:6, 83:13, 83:21, 84:4, 87:1, 88:22, 89:5, 89:10, 103:1, 109:5, 119:22, 120:20, 121:2	includes 36:19, 75:2, 84:3, 87:9, 87:17, 91:10, 111:11 including 9:4, 36:13 increase 45:15 increased 45:12, 86:20 indeed 76:1, 79:14, 88:13, 91:15, 91:19, 100:6, 123:17 independently 26:8 index 4:1 indicate 76:2, 76:11, 105:16 indicated 6:15 indicates 52:16, 118:12 indicating 71:18 indicative 105:10 indirectly 95:15, 106:11 individual 119:12 industry 39:14, 79:18 information 23:20, 23:22, 36:20, 37:6, 41:16, 53:18, 62:7, 66:12, 82:6, 94:5, 94:8, 106:12, 107:15, 114:22, 115:19, 116:1 ingredient 43:13, 91:4,	91:20, 96:20, 97:17, 106:21, 107:16, 112:21, 115:2, 115:22, 117:22, 124:5, 124:7, 124:11 ingredients 35:11, 52:1, 65:17, 69:4, 69:9, 69:20, 72:14, 73:3, 73:5, 75:7, 83:2, 87:17, 90:9, 94:2, 94:12, 94:15, 95:13, 95:21, 96:9, 97:8, 97:17, 97:22, 98:5, 98:11, 98:18, 105:21, 106:4, 107:1, 111:21, 112:12, 113:2, 114:8, 114:19, 115:1, 115:11, 115:15, 116:4, 116:6, 121:7, 121:8 inspection 135:18 instability 72:18, 72:19 instructs 9:20 insufficient 76:3 intended 80:14 interacting 73:5 interest 104:13 interested 135:25 internet 130:3 interrupt 14:5, 47:9 introduce 8:2	introduced 42:1 introduction 41:7, 128:3 invalidity 24:11 invention 86:6, 88:1, 89:8, 93:8, 95:5, 95:17 inventions 94:20 inventors 40:9, 40:12, 40:14, 40:16, 40:22 investigated 71:17 investigating 37:10, 38:5 investigations 36:14, 126:10 invoices 29:8, 29:10, 30:13 involve 37:15 involved 37:8, 38:9 ipr 12:19, 14:15, 14:21, 16:3, 16:9, 17:10, 17:15, 18:15, 18:21, 20:3, 33:18, 123:13, 125:7, 127:12 iprs 8:17, 26:14, 31:7, 33:20, 34:17, 39:20, 41:14, 41:19, 58:15, 67:3, 81:10, 92:21, 119:9, 123:10 issues 117:4 items 47:13
I identification 14:8, 15:19, 17:4, 18:9, 58:1, 81:1, 92:17, 103:21, 111:6, 123:5, 127:7 identified 20:7, 85:10 identify 63:15, 63:18, 130:13, 131:15, 132:12 immediate 28:10 immediately 28:12 imply 95:19 importance 95:19 important 10:8, 23:22, 95:2, 97:5 in-person 32:14, 33:5 inaccuracies 19:18 include 37:13, 64:22, 73:16, 85:20, 86:15, 100:1, 113:12, 114:12, 125:12, 125:17, 126:6, 127:1, 127:18, 127:21, 128:14, 128:16, 128:20 included 39:2			

J	30:7, 30:16, 30:18, 38:21, 40:11, 41:2, 43:7, 49:10, 50:9, 50:13, 50:20, 56:22, 60:5, 63:9, 65:20, 66:11, 66:19, 66:21, 68:1, 68:2, 68:6, 78:14, 80:5, 81:4, 84:9, 86:5, 90:22, 94:4, 95:22, 97:4, 97:6, 97:15, 98:3, 99:22, 106:17, 106:21, 106:22, 107:13, 111:18, 112:21, 115:2, 115:4, 115:14, 116:22, 118:9, 120:2, 120:6, 122:2, 122:3, 129:17, 129:20, 130:3, 131:2, 131:3, 131:7, 132:3, 132:4, 133:19, 133:22	james 40:21 jason 120:12, 120:16 jeffries 3:13 jersey 6:4, 6:6, 6:9 job 1:20 jones 3:14, 5:20 joshua 31:21 july 18:3, 19:9 june 15:10, 16:19, 29:1, 40:1 justin 3:4, 7:10, 31:19 justin's 117:10	ladies 38:3 lamb 4:19, 122:21, 123:6, 123:8, 123:16, 123:22, 124:3, 124:10, 124:14 large 52:16, 52:17 largest 91:5, 91:20 last 5:14, 13:13, 15:7, 17:22, 18:6, 31:22, 32:2, 36:12, 133:22 late 122:4 later 67:8, 111:12 lawyers 7:16, 32:4 lead 38:10, 72:18 least 39:8, 86:8, 91:6, 95:20, 105:11, 114:9, 115:1, 133:1 leatherhead 38:2 leave 118:18 lee 3:21, 15:17, 17:2, 18:7, 57:18, 80:19, 92:9, 103:19, 119:6, 123:3, 124:21, 127:6 left 118:16 legend 73:19 lesniak 4:13, 21:19,	22:1, 40:7, 40:10, 40:12, 40:14, 55:14, 56:1, 56:6, 56:9, 56:11, 56:16, 57:12, 57:15, 57:19, 57:22, 58:2, 58:6, 58:11, 58:14, 58:18, 58:21, 59:5, 59:8, 59:13, 60:2, 60:17, 60:19, 61:7, 61:11, 61:14, 61:15, 61:17, 62:8, 62:16, 62:22, 63:4, 63:15, 63:18, 63:21, 64:4, 64:11, 67:2, 67:19, 70:4, 71:11, 73:10, 74:3, 75:7, 75:12, 75:18, 76:2, 76:11, 76:17, 76:22, 84:10, 84:12, 130:20, 131:1, 131:3, 131:16, 132:2, 133:13 lesniak's 62:10, 77:4 less 30:6, 99:3 let's 10:4, 13:16, 15:14, 16:22, 20:2, 20:4, 21:17, 24:6, 33:13, 41:21, 51:18, 54:19, 54:20, 57:15, 64:10, 65:8, 68:12, 68:17, 73:7, 76:13, 79:15, 80:17, 83:2, 85:11,
K	karen 1:22, 2:8, 135:2 kind 5:22, 15:13, 36:18, 44:8, 51:3, 96:2, 102:17, 104:19, 129:11 kinds 79:20 klerekoper 1:22, 2:8, 135:2 know 5:22, 6:14, 7:22, 10:16, 11:13, 11:21, 13:4, 13:8, 18:22, 21:8,	knowledge 23:20, 27:4, 97:7, 100:21 known 41:18, 52:10, 52:20, 54:12, 86:17, 88:18, 89:10 knows 67:13, 68:1, 94:6, 96:2, 97:4, 99:1, 128:5 kohn 5:15	L	
	lab 38:5			

86:4, 89:18, 90:8, 91:8, 93:4, 99:6, 100:7, 103:16, 108:1, 108:18, 111:2, 111:17, 119:2, 122:21, 124:19, 127:3 letter 51:10, 51:15, 51:16, 122:10, 122:14 level 39:7, 67:11, 67:18 levels 80:8 line 59:14, 59:16, 59:22, 60:4, 71:16, 73:8, 73:20, 75:15, 76:20, 83:8, 83:10, 84:6, 86:4, 87:8, 87:12, 87:16, 87:20, 87:22, 88:8, 90:17, 90:20, 91:9, 91:13, 91:14, 91:16, 93:5, 99:16, 99:20, 99:21, 105:8 lines 74:2, 102:2, 102:4 lip 60:9, 60:15, 78:17, 78:18 lipstick 78:13 lipsticks 78:18, 78:22 liquid 42:19, 43:1, 43:19, 43:21, 44:3, 44:5, 44:11, 46:6,	46:14, 113:4 list 20:11, 20:12, 45:21, 69:20, 111:21, 115:22, 116:4, 116:6, 118:1 listed 13:18, 23:17, 24:3, 46:3, 68:15, 91:7 listing 24:15 lists 20:13, 20:19, 89:13, 90:13, 112:20 little 21:9, 66:2, 75:11, 106:7, 110:3 llc 1:6, 135:12 llp 3:6 long 32:18, 45:16, 128:7 long-lasting 85:13, 85:22 longer 33:2 look 21:12, 24:6, 26:7, 30:12, 30:17, 40:18, 50:21, 51:15, 53:20, 54:3, 59:11, 64:10, 67:7, 82:10, 83:2, 85:11, 88:8, 90:9, 90:20, 91:8, 93:4, 99:6, 100:7, 101:10, 108:1, 108:18, 111:17, 117:21, 120:9, 122:6,	124:18, 124:19, 127:3, 129:14, 130:4, 133:1 looked 48:12 looking 25:14, 25:17, 51:5, 65:17, 71:15, 79:10, 85:7, 89:9, 91:6, 94:5, 94:19, 99:19, 100:2, 100:17, 106:6, 107:6, 112:13, 113:2, 115:15, 117:5, 117:9 looks 24:11, 64:1, 64:2, 71:3, 80:6, 110:10, 118:7, 118:8, 120:10, 130:1 lot 23:21, 28:11, 28:12, 30:21, 35:14, 49:8, 49:14, 49:15, 52:14, 54:14, 60:19, 60:21, 62:7, 63:9, 72:21, 73:3, 79:3, 94:8, 101:5, 114:21, 116:1, 116:6, 126:12, 128:12, 129:16 lotions 74:5, 74:9 lots 53:18, 126:20, 129:12 love 117:6 lower 84:14, 105:6, 105:16, 105:17 lunch 90:6, 118:16,	118:19, 121:17, 122:3 M made 25:22, 35:8, 74:5, 74:10 magnesium 53:5, 54:1, 54:8, 64:7, 83:5, 83:13, 83:21, 84:4, 85:3, 85:7, 85:20, 86:16, 87:1, 87:9, 87:13, 88:5, 88:10, 88:16, 88:22, 89:5, 89:10, 103:1, 109:5, 119:22, 120:20, 121:2 main 23:13, 44:8, 62:18, 113:14, 113:15 maine 120:11, 120:17 make 5:17, 6:20, 7:2, 7:4, 25:3, 26:22, 40:19, 50:5, 115:18 making 115:14 malpractice 12:4 manny 3:5, 8:5, 31:19 manny's 32:2 many 10:12, 11:19, 12:5, 29:21, 30:8, 30:9, 101:4, 105:12, 129:15, 130:1, 131:6, 133:17, 133:19
---	--	--	---

mark 14:5, 14:6, 15:17, 17:2, 18:8, 80:21, 111:4, 123:4 marked 14:8, 15:19, 17:4, 18:9, 58:1, 81:1, 92:15, 92:17, 103:21, 111:6, 123:5, 127:7 market 115:20, 116:14 markings 8:21, 14:11 marlee 3:12, 5:19, 6:13, 47:6 marriage 135:22 massachusetts 2:10, 3:7, 135:4, 135:35 material 39:10, 97:8 materials 20:8, 20:14, 20:21, 23:16, 23:18, 24:3, 24:4, 28:11, 28:13, 28:14, 130:2 matter 27:13, 135:26 maybe 21:7, 21:8, 28:9, 29:3, 29:5, 33:4, 47:1, 48:10, 49:3, 51:10, 83:17, 117:8, 119:3 mean 8:16, 31:15, 49:1, 51:6, 52:13, 65:7, 78:17, 82:5,	82:7, 82:11, 94:7, 105:6, 105:18, 114:15, 129:14, 131:8 meaning 25:11 means 71:12, 79:13 meant 59:2, 79:5 measure 77:1 measured 75:21, 95:5, 98:14, 98:21, 105:3 measures 76:22 measuring 55:16, 95:19 mechanisms 36:14, 36:22, 37:11 medical 12:4 meet 31:11, 31:17, 31:18, 32:4, 32:7, 32:12 meeting 32:14, 33:5, 33:6 meetings 49:14, 51:4 melted 120:19 memorize 131:7 memory 99:17 mention 45:18, 54:7, 56:1, 94:15, 103:6, 103:8, 103:9, 109:14, 129:1 mentions 64:2, 96:1	met 31:18, 32:9 method 56:2, 88:3, 105:3, 105:6 metric 57:13 mgo 88:10 michniak-kohn 1:13, 2:1, 4:3, 5:4, 5:8, 5:15, 6:3, 57:21, 135:5, 135:15 microbes 53:14 microorganism 85:9 microorganisms 85:1, 85:14, 86:2, 86:13 mid 10:19 middle 104:20 might 21:7, 21:9, 47:7, 47:9, 99:17, 117:10 millet 22:22, 23:3 millimeters 93:9, 104:16, 105:2 mind 122:4 minimal 34:9 minute 51:11, 74:7 minutes 47:2, 51:4, 118:16, 118:21 mispronounce 8:3 misrepresentatio- ns 19:18	missed 72:22 mistakes 19:15 mix 84:2, 84:3, 86:19, 89:3, 114:19, 115:11 mixed 46:6, 73:3, 99:14, 100:4, 108:13, 108:22 mixing 88:5, 91:1 modes 62:19 modification 59:5 modified 45:5 moment 77:12, 123:15, 131:2 month 32:15, 50:1, 50:18 more 7:3, 30:15, 37:1, 50:21, 51:13, 54:18, 66:3, 67:5, 78:11, 78:21, 83:21, 84:1, 84:3, 86:19, 98:6, 99:2, 99:12, 108:1, 108:11, 108:22, 124:7 morning 5:8, 8:22 motivated 127:18 move 16:22, 57:15 much 5:11, 79:14, 84:14, 129:21 mucosal 129:10
---	--	--	---

multifunctional 21:13, 63:10 must 96:3 N nabavi 124:20, 125:5, 125:9, 125:12, 125:17, 126:6 name 5:9, 5:12, 5:18, 5:19, 6:1, 6:2, 7:22, 31:22, 32:2, 46:9, 53:16 names 5:14 native 4:17, 4:18, 22:13, 111:2, 111:7, 111:11, 111:14, 112:2, 112:14, 112:20, 113:2, 113:7, 113:12, 113:19, 114:1, 114:14, 115:9, 116:13, 116:18, 118:12, 127:19 natural 119:17, 120:2, 120:6, 120:10, 121:1 necessarily 25:8, 52:18, 67:20 need 10:15, 10:20, 47:9, 51:12, 72:22, 122:7 needle 93:10, 95:5, 105:5, 105:15, 105:18 needs 19:21, 20:1 negative 61:22	new 6:4, 6:6, 6:9 next 6:8, 7:8, 13:6, 13:10, 17:1, 41:6, 43:12, 44:15, 50:20, 52:6, 54:19, 55:2, 60:2, 69:7, 83:17, 87:8, 100:8, 103:16, 108:19, 111:2, 119:2, 122:8, 122:22, 127:3 nickname 5:12 nine 71:7 nodding 10:9 none 8:20, 19:19, 67:2, 67:11, 67:17, 68:8, 73:16, 89:4 nonverbal 10:8 nope 121:14 notary 2:9, 135:1, 135:3, 135:34 note 59:8 notes 8:21, 9:5, 9:7 nothing 9:1, 20:1, 118:11 notice 2:8 number 11:21, 14:12, 14:15, 16:3, 18:15, 30:14, 52:16, 52:17, 53:13, 124:22	numbers 14:13, 21:21, 56:8, 105:6, 105:16, 105:17 numerous 25:10, 52:9, 52:12, 52:16, 52:19 nw 3:7 O oath 5:2 object 9:19 objection 25:20, 102:13, 131:18 obviously 23:19, 23:22, 24:20, 28:2, 28:18, 34:7, 36:20, 38:10, 48:9, 56:18, 72:21, 76:7, 76:10, 77:14, 80:6, 80:9, 94:6, 98:13, 98:22, 99:5, 115:4, 126:12, 128:14, 129:22, 134:1 occurred 48:15, 135:15 odor 85:1, 85:13, 85:22, 86:13 odor-causing 85:14, 86:1 office 1:1 official 90:4 officially 51:7 often 61:13, 61:16	oh 31:18, 87:7, 117:7, 117:12 oil 44:18, 65:22, 68:20, 102:11, 125:10, 126:7, 126:14, 126:16, 127:15, 127:18, 128:5, 128:15, 128:21 oils 43:16, 52:4, 102:16 okay 9:2, 10:21, 11:5, 13:11, 18:21, 38:12, 38:17, 38:20, 41:16, 46:5, 50:19, 65:11, 66:5, 68:11, 70:22, 72:7, 72:17, 76:17, 82:13, 89:18, 89:19, 96:5, 96:7, 96:19, 97:13, 98:8, 98:11, 101:3, 101:14, 102:4, 104:21, 109:16, 112:9, 112:11, 112:14, 112:20, 115:21, 117:12, 117:17, 122:8, 122:12, 122:14, 122:16, 122:21, 125:22, 126:15, 129:7, 130:11, 134:2 old 42:16 oliver 3:4, 6:13, 7:10, 7:21, 8:4, 25:20, 31:19, 47:6, 102:13, 112:4, 112:6,
--	--	--	--

118:20, 121:19, 131:18, 134:4 once 23:5, 23:6, 32:10, 102:17 one 7:16, 10:3, 10:13, 12:22, 13:3, 13:10, 13:13, 16:16, 16:19, 17:1, 17:15, 18:3, 18:6, 18:18, 18:21, 19:9, 40:6, 40:21, 45:13, 53:3, 57:8, 57:14, 59:19, 60:7, 60:11, 62:3, 62:5, 65:20, 68:18, 69:8, 72:4, 74:9, 75:2, 75:6, 75:14, 76:17, 77:21, 83:9, 86:8, 86:19, 87:7, 87:9, 87:13, 87:16, 88:3, 88:15, 90:18, 91:9, 91:17, 92:3, 92:6, 95:2, 96:21, 97:2, 97:11, 101:2, 104:13, 104:20, 110:18, 113:14, 113:15, 119:11, 120:11, 120:12, 125:3, 127:9, 127:13, 132:17, 133:6 one-to-one 97:15 onedrive 13:19 ones 9:4, 21:2, 26:16, 46:4,	55:20, 65:11, 100:9 only 5:11, 8:22, 10:3, 10:18, 55:12, 55:20, 61:11, 69:19, 71:3, 72:13, 73:12, 75:6, 93:16, 115:14 oops 117:14 open 58:3, 92:14, 104:1 opening 122:10 opining 24:12 opinion 41:17, 46:5, 56:13, 58:18, 59:4, 67:21 opinions 12:14, 15:3, 16:13, 17:19, 19:3, 20:9, 23:17, 24:22, 29:18, 49:21, 129:16 optionally 59:19 order 59:6, 114:9, 115:1 ordinary 25:12, 39:7, 62:8, 95:10, 95:20, 114:20, 115:7, 130:1, 131:10 organic 45:3 other 6:17, 6:22, 7:14, 7:16, 7:21, 8:4, 8:21, 10:5, 10:14,	12:3, 15:12, 20:14, 23:16, 24:16, 26:10, 28:13, 31:6, 31:9, 32:15, 33:20, 39:13, 39:20, 44:5, 45:7, 45:11, 46:2, 46:10, 52:20, 53:16, 53:21, 54:7, 54:11, 58:4, 63:21, 67:2, 67:18, 68:8, 71:7, 73:16, 76:7, 79:15, 79:16, 82:5, 89:6, 89:12, 90:9, 96:22, 97:2, 97:11, 104:6, 110:21, 113:12, 114:8, 124:8, 126:10 others 23:14, 44:7, 80:1, 98:7, 100:12, 113:16 otherwise 135:25 out 49:20, 53:13, 67:10, 67:17, 73:10, 75:5, 79:16, 81:16, 112:6, 117:7, 123:9, 130:9, 131:9, 131:12, 134:1 outcome 135:26 outlined 115:13, 116:8 over 9:9, 10:5, 30:4, 48:13, 50:20, 90:6, 96:17, 129:15, 132:3, 132:22	overall 82:15 overlap 55:17, 56:20, 56:22, 57:10, 77:13, 80:10 overlapping 77:20 own 14:10, 23:19, 23:21, 27:4, 27:7, 49:6, 78:5, 78:6, 89:11, 130:16 owner 1:10, 3:11, 5:21, 12:11 oxalate 54:10 oxide 53:7, 53:8, 53:9, 53:10, 54:1, 60:20, 60:22, 62:11, 62:13, 62:16, 62:18, 62:21, 63:2, 63:7, 63:16, 63:19, 64:9, 64:18, 64:22, 66:1, 66:17, 66:22, 67:4, 67:12, 67:14, 67:18, 68:9, 68:18, 83:16, 84:9, 84:12, 84:14, 85:7, 85:20, 86:15, 86:16, 87:2, 87:9, 87:10, 87:13, 87:14, 88:5, 88:10, 88:16, 103:8, 103:9, 103:11, 109:9, 109:13 P p&g 5:21, 12:19,
---	---	---	---

41:18, 57:13, 77:1, 77:5, 77:19, 112:17, 122:18 p&g's 17:12 page 4:2, 4:7, 15:6, 15:7, 16:17, 17:22, 19:7, 85:19, 108:3, 108:19, 109:17, 109:21, 111:18, 112:10, 116:21, 117:1, 117:5, 117:9, 117:21, 119:14, 120:9, 120:14, 120:15, 124:7, 126:9 pages 1:21 papers 34:6, 49:9, 49:11 paragraph 20:4, 20:7, 20:18, 21:3, 21:18, 24:7, 25:17, 33:13, 34:19, 36:12, 37:11, 38:20, 41:8, 41:21, 44:17, 52:7, 54:20, 55:2, 104:11, 104:12, 104:19, 116:10 parameter 95:3 part 28:6, 37:22, 42:22, 93:14, 104:7, 111:13 particular 40:19, 46:7, 65:5, 67:21, 71:9, 72:15, 72:20, 74:1, 85:2, 96:8,	96:20, 97:16, 99:2, 102:20, 106:4, 107:16, 114:3, 114:6, 116:20 particularly 71:16 parties 6:18, 6:19, 135:20, 135:22, 135:24 party 135:11 pass 71:1 passed 71:4, 72:3, 72:11 passes 70:17 past 11:11, 23:21, 27:5, 36:13 patent 1:1, 1:3, 1:10, 3:11, 5:21, 12:1, 12:2, 12:9, 12:10, 12:11, 13:3, 13:6, 13:7, 13:11, 13:14, 14:18, 15:4, 16:6, 16:14, 17:12, 17:20, 18:18, 19:4, 21:5, 24:12, 54:3, 61:14, 61:15, 61:17, 62:9, 94:6, 94:9, 97:4, 109:15 patents 8:12, 12:19, 12:22, 23:13, 31:4, 41:18, 49:10, 53:19, 57:13, 77:1, 77:6, 77:19	patients 129:16 pdf 111:18, 112:1, 112:6, 116:21, 119:14, 120:15 penetration 93:10, 95:6, 105:5, 105:15 pennsylvania 3:17 people 7:14, 86:18, 117:6, 117:19, 123:18, 130:5 percent 62:13, 64:18, 64:22, 66:22, 67:4, 68:9, 68:18, 68:20, 68:22, 69:2, 69:5, 69:11, 69:15, 69:16, 70:12, 72:8, 72:13, 83:5, 83:12, 83:15, 83:16, 84:12, 90:18, 90:21, 91:10, 91:14, 91:17, 99:12, 99:13, 102:1, 102:6, 103:11, 108:11, 108:21, 109:12 percentages 68:3 percents 65:18 performed 110:10 perfume 79:22 perhaps 48:11, 59:1 person 25:12, 32:10, 39:8, 62:7, 95:10, 95:20,	107:12, 114:20, 115:6, 129:22, 131:10 personal 63:10, 79:17, 130:7 perspiration 38:8 pertains 12:18 petitioner 1:7, 3:3, 14:11, 80:20, 92:11, 103:19 petitioner's 57:20, 111:3, 123:1 petitioners 124:20 ph 35:13, 35:17, 36:19, 37:2, 37:21, 38:13, 38:16 pharmaceutical 39:9, 131:5 pharmaceuticals 38:2, 39:13 pharmacy 39:9 phases 71:13, 71:19, 71:22 phinney 4:14, 21:19, 22:5, 40:17, 80:18, 80:19, 81:2, 81:6, 81:8, 81:9, 81:13, 81:16, 81:20, 82:1, 82:8, 82:21, 83:3, 83:4, 83:20, 84:11, 84:15, 84:21, 85:19, 86:22, 88:21, 89:5, 90:8, 90:10,
--	---	---	---

90:11, 91:5, 91:21, 92:2, 132:7, 132:10, 132:14, 133:13 phinney's 84:17 photos 112:2 physical 44:12, 71:16, 95:3 picking 54:6 piscataway 6:6 pittsburgh 3:17 place 42:10, 46:22, 89:17 plain 123:19 planet 3:21 planning 90:5 please 9:13, 11:11, 74:14, 120:5 plenty 89:12 plus 46:16 point 10:15, 85:16, 118:8 polyol 91:5, 91:7, 92:7 popular 43:11, 46:4 popularity 43:8 portion 105:20 posa 25:4, 27:2, 27:3, 39:3,	39:19, 41:1, 41:4, 67:13, 68:1, 68:6, 82:14, 96:2, 97:3, 97:7, 106:11, 127:17, 128:5 posas 40:10, 40:14, 40:17 position 56:10, 58:21, 63:2, 65:2, 68:5, 107:11, 125:9, 127:17 positive 117:2 possibility 57:10 possible 27:11, 50:6 possibly 29:7, 56:20, 66:19, 130:2, 133:3 post 119:11, 129:16, 130:14, 130:16 posting 129:18 posts 129:8, 130:12 potassium 84:18, 84:19, 86:9, 88:6, 88:11, 88:16, 89:1 potentially 54:17 powder 45:21, 112:19, 119:21, 120:20, 121:2 precise 11:22, 72:15 prefer 130:10 preferably 105:2	preferences 66:16, 130:9 prepare 29:18, 30:19, 31:11, 32:8 prepared 56:18 presence 87:2, 96:11, 107:9, 107:22 present 3:20, 19:17, 41:5, 91:4, 94:20 presenting 106:11 presents 95:10 pretty 46:22, 118:7 previously 85:10 primary 112:15, 112:18 prior 11:16, 12:13, 21:17, 26:13, 26:14, 38:18, 58:15, 68:8, 81:9, 122:18, 123:9, 125:6, 130:21, 132:8, 132:18, 133:6 probably 23:13, 27:15, 37:1, 40:20, 48:19, 50:18, 51:9, 79:1, 133:4 problem 67:13, 112:1, 118:12 procedure 115:14, 116:9 proceedings 12:19, 134:6 process 26:10, 49:13	proctor 1:9, 5:21 product 74:2, 80:16, 115:5 products 39:13, 126:12, 126:19, 126:21, 128:3, 128:13, 129:13, 131:5 progressed 49:12 proliferate 53:14 promotes 53:12 pronounce 5:9, 8:1 pronouncing 31:22 pronunciation 5:10 properties 44:13, 46:8, 62:20, 67:14, 68:3, 80:3, 128:4 proposed 26:3, 26:6 propylene 91:10, 91:14, 91:18, 92:7 protection 85:13, 85:22 protective 126:11 provide 25:6, 93:19 provided 8:8, 8:14, 20:21, 21:5, 22:3, 22:8, 22:10, 22:14, 23:2, 24:22, 25:18, 25:21, 42:12, 66:12 provides 85:12, 85:22,
---	---	--	--

107:10 public 2:9, 36:20, 135:1, 135:3, 135:34 publication 130:14, 130:15, 131:16, 131:19 publications 130:16, 131:20, 131:22, 132:1, 132:13 published 34:6 pull 13:20, 80:17 pure 9:7 purposes 6:16, 6:22 pursuant 2:8, 105:3 put 38:5, 66:13 putting 25:15 Q q5 100:12, 100:15 qualifications 34:17 quantify 52:12 question 9:13, 9:16, 9:22, 10:19, 10:20, 42:20, 49:19, 56:5, 59:1, 61:6, 63:1, 63:17, 67:16, 79:18, 80:10, 81:22, 95:12, 96:5, 96:13, 97:12, 97:14, 97:19, 101:18, 102:5, 107:14, 114:11,	114:13, 116:12, 120:5, 124:2, 125:16, 130:16, 132:8, 133:5 questions 9:12, 9:19, 15:13, 134:3, 134:4 quick 81:21, 122:6 quickly 129:4 quite 48:5, 51:6, 56:4, 59:2, 61:5 quotes 117:4 R range 55:10, 55:13, 55:15, 55:21, 55:22, 56:11, 57:1, 57:12, 77:4, 78:2, 78:17, 78:21, 93:2, 93:4, 93:8, 93:17, 96:21, 97:16, 97:20, 104:8, 104:10 ranges 77:20, 93:14, 105:9 rather 76:9 ratio 84:7, 98:9 reached 49:21 reaction 38:7 read 5:2, 25:9, 25:22, 26:8, 28:11, 129:21, 131:12, 133:20 reading 25:1, 30:21,	49:15, 62:8, 62:9, 85:16, 97:3, 97:8, 107:13, 110:3, 135:18 really 5:12, 122:5 reason 11:7, 11:9, 40:13, 41:3 reasoning 56:15 recall 23:15, 32:13, 42:16, 49:4, 50:1, 50:10, 67:6, 68:10, 99:15, 130:18, 131:14, 132:4, 132:11, 132:15, 133:4, 133:10 receive 23:4, 27:21 received 8:22, 23:7, 23:13, 27:22, 38:16, 49:3, 49:5, 49:10, 130:20, 130:21, 132:7, 132:9, 132:17, 133:6 receiving 132:18 recipe 119:15 recognize 14:14, 16:2, 17:9, 18:14, 58:11, 81:6, 92:19, 104:2, 111:14, 119:8, 123:8, 125:5, 127:11 recollection 47:22, 48:14, 49:13 record 6:2, 6:21, 7:4,	33:12, 47:5, 47:6, 89:20, 112:4, 121:20, 122:5, 129:3, 129:5, 135:9, 135:20 recorded 6:16 recordings 6:18, 6:22 records 51:1 red 118:3 reduces 53:10, 53:11 refer 41:11, 71:14 reference 4:13, 4:14, 4:15, 4:16, 4:19, 4:20, 22:13, 23:1, 25:12, 40:17, 56:11, 58:2, 58:12, 58:14, 70:20, 80:18, 81:2, 81:7, 90:9, 92:9, 92:18, 92:20, 103:17, 103:22, 104:3, 104:6, 104:7, 111:15, 114:1, 114:3, 114:6, 114:14, 115:8, 115:9, 116:4, 116:19, 116:20, 118:12, 118:17, 119:8, 119:9, 122:21, 123:6, 123:9, 125:6, 127:8, 127:12, 128:19, 130:20, 131:8, 132:7 referenced 65:9 references 23:5, 25:2,
--	--	---	---

25:10, 25:15, 25:22, 26:7, 26:14, 26:20, 26:21, 27:3, 27:21, 40:6, 40:22, 49:3, 49:5, 49:18, 50:9, 55:3, 55:7, 55:8, 55:12, 55:18, 55:20, 67:3, 67:8, 67:9, 67:11, 67:18, 68:7, 89:12, 126:13, 133:11, 133:18 referring 13:4, 13:8, 14:22, 16:10, 17:16, 18:22, 70:14 refers 37:1, 85:2, 85:6 reformulate 99:3 refresh 47:21, 48:13, 99:17 regarding 107:15, 115:11 regular 34:7 related 12:19, 96:11, 106:12, 118:14, 135:21 relates 14:18, 16:6, 17:12, 18:18, 34:10, 37:18 relating 12:14, 95:8 relation 38:12 relationship 97:11 relevant 39:14, 39:15,	130:3 reliable 131:11 relied 26:14, 130:22, 132:10, 132:19, 133:3, 133:7, 133:15, 133:18 rely 21:18, 40:6, 41:1, 55:9, 58:14, 67:3, 81:9, 92:20, 93:1, 104:3, 104:7, 111:15, 111:22, 119:9, 122:18, 123:9, 125:6, 127:12, 127:14 relying 50:14, 55:19, 56:6, 93:13, 97:6, 114:1 remember 11:10, 23:7, 23:10, 28:6, 30:2, 30:5, 30:7, 30:8, 32:14, 32:20, 43:9, 44:6, 47:19, 49:9, 100:22, 122:20, 133:22 remembering 23:15 remote 10:3 removing 121:6 repeat 21:21, 42:20, 63:1, 63:17, 81:22, 102:5, 120:5, 124:2, 125:16 rephrase 59:1 reported 1:22	reporter 7:1, 10:2, 14:4, 58:10, 135:1, 135:3 represented 135:12 representing 12:10 require 59:5 requires 88:21 research 66:3, 67:5, 129:12 reside 6:6 respect 63:7, 70:12, 82:21, 84:10, 133:12 response 87:4 result 46:18, 110:16 resulted 95:17 results 110:1, 110:18 retained 23:11, 27:16, 27:19, 28:9, 47:15, 48:8, 51:8, 90:4, 122:1 retaining 6:21 review 20:17, 30:22, 66:6 reviewed 19:12, 20:8, 20:14, 23:18, 24:4, 25:2, 49:6 reviewing 94:17, 96:15, 106:2, 107:5, 113:17, 120:4,	121:4, 125:15, 128:1 reviews 117:2, 117:15, 117:18, 118:5 revisit 67:8 right-hand 7:11 room 6:10, 7:6, 7:14, 8:5, 8:11, 47:9, 48:2 routine 73:1 routinely 129:7, 129:20 rpr 1:22 rules 6:17, 9:10, 11:1 run 15:12, 110:13, 110:14 runs 110:11 S s-t-o-i-a 127:4 sl 106:18 sadly 28:18 said 35:19, 37:8, 38:12, 45:7, 47:15, 48:4, 49:2, 54:9, 63:9, 98:20, 107:21, 109:21, 114:17, 133:1, 135:19 salicylaldehyde 54:9 salt 99:14, 100:16,
---	---	--	--

108:13 salts 54:7, 100:5, 108:22 same 7:12, 14:12, 15:13, 26:9, 34:17, 39:19, 40:18, 41:13, 69:8, 69:12, 72:9, 79:6, 83:17, 87:22, 88:9, 101:18, 120:9, 120:15, 132:8, 133:5, 133:9 satisfactory 57:9, 82:15, 82:17 satisfied 65:10 satisfy 65:11 say 27:1, 27:10, 28:8, 32:22, 34:19, 44:17, 45:3, 52:9, 62:16, 62:21, 63:3, 65:12, 74:2, 76:5, 78:22, 84:6, 86:12, 86:14, 91:8, 92:2, 94:2, 95:12, 97:10, 97:22, 105:21, 112:14, 131:19, 133:14, 133:16 saying 95:15 says 36:13, 36:17, 59:19, 60:1, 60:7, 60:10, 60:12, 60:14, 60:17, 61:7, 61:11, 62:1,	62:3, 62:5, 62:6, 68:21, 70:16, 73:20, 74:5, 75:18, 76:17, 77:10, 85:12, 85:19, 85:21, 86:3, 90:18, 91:15, 93:7, 93:12, 95:2, 96:11, 97:19, 101:22, 104:13, 104:22, 107:7, 107:19, 117:9, 120:19 scene 43:5 science 21:14, 24:21, 25:14, 26:19, 39:10, 131:12 sciences 39:9 scientific 97:7 scientist 38:10 scratch 26:16, 76:12 screen 115:16 scroll 15:6, 19:6, 88:20, 99:7 se 64:3 search 96:16, 107:18, 109:15, 128:12, 131:12 searches 131:10, 133:19 searching 133:21 second 103:16 section 24:4, 41:7, 43:12, 54:4,	54:19 sections 23:18, 41:17 see 19:20, 24:9, 27:2, 33:15, 33:16, 41:9, 54:5, 54:20, 54:22, 59:12, 59:17, 64:12, 65:8, 70:17, 70:19, 70:20, 71:20, 73:4, 83:11, 86:10, 86:11, 97:21, 99:9, 99:10, 100:10, 100:13, 100:14, 101:13, 101:14, 104:17, 104:21, 105:4, 107:18, 108:3, 108:20, 109:18, 110:17, 112:2, 112:9, 117:6, 117:15, 117:16, 118:3, 118:4, 118:6, 120:13, 120:16, 129:9, 130:7 seed 73:22, 74:6, 74:11, 74:13, 74:17, 74:21, 75:2, 127:15, 128:21 seems 50:16, 77:7 seen 26:13, 118:14, 131:3 selection 54:16 self-supporting 105:10 sense 65:8, 82:9 sent 34:6	sentence 36:12, 37:11, 60:11, 83:17, 83:18, 96:10, 97:1, 97:10, 97:19, 97:21, 107:7, 107:19, 114:17 sentences 61:9 separate 14:13, 77:15 separated 71:12, 71:22 separation 71:18 series 9:11, 12:4, 65:15, 70:17, 71:5 serving 12:6 set 97:17, 102:20, 135:6, 135:27 sets 15:2, 16:12, 17:18, 19:2 seven 120:16 several 62:19, 62:20 shaking 10:9 shared 6:19 shelf 21:11, 21:14, 21:16 shorthand 135:1 shortly 23:11, 28:8 should 9:21, 10:4, 14:12, 34:4, 83:20, 84:7 show 29:8, 29:11
--	---	--	---

shown 93:9 shows 114:10 side 7:11, 7:12, 7:21, 77:22, 105:12 sides 6:20 signature 15:7, 16:17, 18:1, 19:7 signature-plkal 135:29 signed 15:10, 16:19, 18:3, 19:9, 19:13, 34:1 signing 135:19 silicon 45:5 silicone 102:10 silicones 43:19, 101:18, 101:20, 102:2, 102:7, 102:14, 113:21, 113:22 silicons 108:15, 109:2 similar 20:13, 24:15, 132:11 similarly 39:14 since 7:6, 10:3, 19:12, 34:3, 77:9, 77:11, 85:13, 86:1 single 124:5, 124:7, 124:11 sit 131:15, 132:12, 133:14	sitting 7:8, 7:10, 7:19, 19:20, 23:9, 130:13 skill 25:13, 39:7, 62:8, 95:10, 95:20, 107:12, 114:20, 115:7, 130:1, 131:10 skin 38:7, 52:21, 125:21, 131:4 slightly 55:15, 56:2 slipped 122:4 small 69:21, 70:5, 70:11, 72:17, 117:16 soda 53:3, 53:22, 64:4, 103:3, 103:7, 109:7, 113:10 sodium 42:14, 45:13, 53:4, 123:19 soft 76:6, 77:14, 105:12 softer 77:5, 77:18, 77:21, 78:14, 78:16, 79:3, 79:5, 79:7, 79:12, 79:14, 80:12 softness 98:7 sold 116:15 solid 46:10, 82:10, 82:12, 90:15, 105:10, 115:5 solidify 44:18, 46:10	solids 45:3, 45:5 solutions 35:9, 35:20, 36:8 some 8:6, 8:8, 9:19, 11:1, 14:11, 21:1, 23:14, 26:15, 34:9, 34:13, 35:16, 38:1, 44:7, 44:20, 52:17, 52:22, 53:16, 54:17, 58:3, 65:10, 68:13, 72:22, 73:1, 78:16, 79:16, 80:10, 80:11, 80:12, 80:13, 86:19, 90:9, 95:16, 95:22, 98:5, 100:8, 101:1, 101:7, 102:17, 102:18, 106:12, 107:10, 115:3, 119:21, 122:17, 124:8 somebody 47:7, 130:6 someone 47:9 something 11:10, 42:14, 96:12, 117:17, 129:18, 129:22 sometime 28:19, 28:22, 47:15, 48:8, 48:21 sometimes 129:17 somewhat 105:12 sorry 6:14, 14:5, 21:22, 26:16, 28:5, 28:10,	31:17, 31:19, 32:3, 38:3, 51:2, 76:12, 79:5, 90:5, 91:11, 104:18, 109:19, 109:20, 124:22, 127:2, 131:20, 131:21, 132:5, 133:9 sound 10:6, 33:1 sounds 10:7, 47:3 speak 10:4, 10:5, 29:17, 29:20 specific 75:9, 78:21, 96:21, 97:16, 98:5, 99:6, 107:6, 107:16, 128:11 specifically 9:20, 84:3, 93:1, 94:13, 101:2, 108:2, 115:8, 126:1, 126:9, 131:13 spelled 5:13 spent 29:21, 30:9 squatch 1:6, 3:22, 24:18, 27:17, 29:13, 29:15, 48:6, 122:16, 135:12 squatch's 20:22, 27:8 stability 68:12, 69:22, 70:6, 70:12, 70:14, 70:16, 70:21, 71:4, 71:8, 71:11, 71:16, 72:3, 72:11, 73:1,
--	--	--	---

73:4, 121:13, 121:14, 124:16, 124:18 stabilize 42:15 stage 23:9, 23:15, 42:16, 66:9, 67:6, 68:10, 120:8, 133:9 star 117:18 stars 117:20, 118:8 start 9:9, 13:16, 20:4, 21:2, 41:21, 87:6, 99:8, 118:17, 118:18 started 6:14, 43:7 starting 20:4, 21:4, 34:19, 43:16, 75:14, 120:3, 120:7 starts 41:8, 54:20, 87:20, 99:21, 119:17 state 2:9, 6:1, 66:4, 135:4, 135:34 states 1:1 stearate 42:15, 45:13 stearates 45:14 stearyl 45:19, 105:13, 106:8, 107:8, 107:22, 112:15 step 116:9 stick 36:1, 36:2,	36:5, 36:6, 46:7, 46:11, 46:12, 46:14, 46:17, 46:20, 57:9, 58:5, 58:19, 62:15, 62:22, 63:3, 65:20, 66:8, 66:13, 73:13, 73:14, 73:17, 73:19, 73:21, 74:1, 74:4, 74:5, 74:10, 75:1, 75:8, 75:18, 76:14, 76:18, 77:8, 77:16, 77:17, 78:15, 79:12, 82:10, 82:12, 82:15, 82:16, 82:18, 90:15, 98:14, 98:22, 99:4, 104:14, 105:1, 105:10, 105:11, 105:16, 105:18, 105:20, 106:13, 106:14, 106:15, 114:5, 114:10, 114:14, 114:18, 116:14, 118:13, 120:12, 121:11, 123:22, 124:3, 126:17, 128:22 sticks 41:22, 42:3, 42:8, 42:21, 43:4, 43:14, 44:12, 52:1, 56:19, 61:2, 76:5, 76:10, 77:18, 78:8, 78:10, 78:11, 79:2, 79:4, 79:6, 79:8, 79:15, 79:17, 79:20, 79:22, 80:4, 80:11,	82:7, 92:3, 93:22, 95:4, 105:6, 105:14, 106:17, 121:7, 125:14, 125:18, 125:19, 127:22 still 33:8, 72:22, 97:2 stipulation 5:2 stoia 4:20, 127:3, 127:8, 127:11, 127:19, 127:21, 128:16, 128:20 stop 47:1, 89:17 street 3:15 structurant 42:13, 46:6, 46:13, 66:8, 112:16, 112:18 structurants 44:16, 44:17, 44:21, 45:1, 45:17, 46:2, 46:9, 52:5, 65:21 structure 42:9, 42:12, 45:12, 45:15, 46:10, 80:8, 102:17 struggle 32:2 student 37:21 students 34:6 studied 126:11 study 123:18, 124:10 submitted 12:18, 14:15, 16:3, 17:10,	18:15, 33:17 substance 11:4, 41:13, 90:1 substituting 39:15 suffolk 135:33 suitable 77:8, 77:16 suite 3:16 sulfate 84:19, 86:9, 88:6, 88:11, 89:1 summary 86:6 sunflower 68:20, 73:22, 74:6, 74:11, 74:13, 74:17, 74:20, 75:2, 127:15, 127:18, 128:5, 128:21 sunscreen 64:14, 64:21, 73:14, 75:1, 76:13, 79:6 sunscreens 63:8, 64:16, 64:17, 74:12, 74:16 sure 5:17, 7:4, 11:11, 11:14, 21:15, 48:5, 57:7, 57:11, 65:4, 65:14, 66:3, 66:6, 66:11, 77:13, 100:19, 116:11, 120:8, 121:19, 123:14 surprise 67:10, 67:17, 67:20, 67:22 surprised 77:17
---	---	--	--

surprises 77:22 suspect 9:10 suspensoid 95:4 sworn 5:5, 11:16, 135:6 synergy 86:20 system 102:11	51:3, 64:10, 68:17, 69:4, 89:16, 121:16 taken 135:8 taking 67:7, 122:13 talk 7:3, 41:6, 54:5, 89:22, 95:1, 109:16, 115:10, 121:6, 122:21, 124:3, 124:6, 125:19 talked 52:4, 75:6, 75:11, 92:3, 110:2 talking 13:21, 51:22, 57:16, 70:3, 70:8, 70:9, 72:3, 72:19, 76:14, 82:14, 88:3, 92:12, 107:8, 121:7, 123:22 talks 37:12, 56:1, 60:21, 61:1, 74:4, 82:11, 86:7, 88:4, 99:17, 105:8, 106:7, 110:13, 125:20, 126:9, 128:3 tea 120:12 teaches 83:20 teachings 26:20, 127:19 technical 41:7 technically 6:8 technican 3:21	technician 6:15, 81:3 technology 21:15, 41:13 tell 20:5, 28:5, 35:11, 37:20, 65:18, 122:17 tells 60:19 temperature 47:8, 70:21 ten 118:15, 118:20 tend 79:3 terminology 73:17 terms 55:18, 61:7, 94:10 test 70:16, 71:4, 71:8, 71:9, 71:11, 71:21, 72:3, 72:12, 93:10, 105:15 testability 70:16 tested 35:17, 76:18 testified 5:5, 12:3, 12:10, 62:11, 130:19, 132:6, 132:16 testimony 11:5, 11:8, 11:16, 12:14, 90:1, 135:9 testing 36:21, 37:4, 37:8, 37:14, 37:16, 37:17, 38:1, 38:17, 65:10, 65:12, 68:13, 73:1, 73:2, 73:4,	110:1, 110:11 tests 37:10 texture 75:21 th 15:10, 16:19, 18:3, 19:9, 122:15, 135:28 thank 5:10, 112:3, 125:2 thanks 7:5 thereby 53:13 thesis 37:22 things 34:7, 35:16, 54:6, 129:15, 133:19 think 14:12, 16:17, 19:7, 20:17, 23:12, 27:15, 28:18, 29:3, 29:5, 30:4, 30:6, 30:15, 33:2, 33:3, 46:21, 49:2, 51:6, 51:9, 56:4, 58:5, 59:13, 61:5, 62:5, 62:11, 64:1, 64:8, 64:11, 67:16, 75:14, 76:21, 77:22, 80:15, 80:21, 82:3, 83:16, 84:6, 85:2, 89:16, 90:17, 91:13, 91:16, 93:4, 97:6, 97:12, 103:6, 107:21, 118:15, 119:3, 121:15, 123:12,
T			
tab 13:18, 15:17, 17:2, 18:7, 57:18, 80:18, 92:9, 103:18, 111:3, 119:5, 123:2, 124:21, 127:5 table 7:9, 7:11, 7:12, 7:19, 7:21, 64:10, 64:14, 64:19, 64:20, 68:14, 70:18, 73:7, 73:12, 74:12, 74:14, 74:16, 74:20, 75:1, 75:6, 76:15, 99:8, 101:14, 106:7, 106:10, 106:15, 108:3, 108:6, 108:19, 108:20, 109:17, 109:21, 110:1, 110:16, 110:21 tables 73:16, 101:20, 110:7 take 10:12, 10:19, 10:21, 30:12, 30:17, 47:1,			

133:6, 134:2 three 15:13, 20:14, 26:10, 32:9, 33:20, 39:11, 39:20, 44:8, 61:8, 61:12, 61:19, 61:20, 87:17, 101:15, 117:2, 117:15, 117:19, 123:9 three-dimensional 42:12 through 5:22, 15:12, 21:3, 34:13, 41:6, 68:11, 72:7, 87:5, 100:7, 101:7, 101:10, 102:2, 106:18, 108:7, 108:18, 110:5, 110:6, 133:20 throughout 131:1, 132:10, 132:20, 133:8 thursday 1:15, 135:15 thymol 54:7 time 10:4, 19:17, 25:13, 27:2, 34:1, 41:5, 48:21, 59:12, 60:2, 62:3, 62:5, 122:13, 128:7 times 11:19, 32:9, 61:12, 61:18, 61:19, 61:20, 61:21 today 5:20, 8:13, 8:18, 11:8, 11:17, 30:20, 58:16, 81:10,	123:10, 130:13, 131:15, 132:13 today's 9:18 together 25:3, 25:15, 27:10, 28:21, 69:4, 73:4, 85:4, 85:8, 86:16, 98:1, 105:11, 114:19 told 25:8 tom's 120:11, 120:17 top 30:10, 30:14, 32:21, 44:6, 53:22, 67:1, 74:3, 74:8, 88:14, 90:17, 110:5, 118:5, 120:10 topical 34:21, 52:15, 129:12 topicals 129:9 town 6:8 track 90:3 trademark 1:1 transcript 4:8 transdermals 129:10 treat 52:21 tree 120:12, 120:16 trial 1:3, 11:17 triglycerides 44:2, 68:22, 112:21, 113:3 trouble 129:17	true 135:9 truthful 11:8 try 10:4, 10:13, 78:1 trying 49:20 turn 79:15, 103:16, 111:2 turned 59:6 twice 96:17 two 33:3, 39:11, 55:3, 55:6, 55:8, 55:12, 55:19, 61:21, 69:14, 70:13, 71:12, 71:18, 71:22, 72:15, 89:6, 96:18, 110:10, 110:18, 112:2, 120:10, 133:13 type 51:6, 66:1 types 44:5, 80:4, 126:20 typical 93:7 U um 83:7 um-hmm 76:20, 82:19, 100:3, 104:21, 108:6, 118:10 unable 105:19 under 6:17, 8:12, 54:4, 64:11,	73:7, 86:6, 117:11 under-the-eye 79:21 underneath 71:1 understand 9:12, 9:21, 10:1, 10:10, 10:11, 11:6, 12:17, 14:22, 16:10, 17:16, 41:12, 47:11, 51:5, 57:3, 59:2, 68:5, 77:4, 79:7, 80:3, 82:14, 97:13, 100:15, 107:11, 113:3, 115:6, 116:13 understanding 97:18 understood 7:5, 9:16, 25:16, 26:3, 26:9, 27:12, 48:3, 49:16, 56:4, 66:5, 67:16, 94:10, 101:6, 116:2 unfortunately 51:1 united 1:1 units 55:15, 56:3, 77:3 unless 9:20 unstable 72:5 until 118:16 updated 19:21 updates 34:3, 34:5 usanol 54:9
---	--	---	--

use 42:14, 66:18, 67:3, 68:2, 68:9, 73:18, 80:5, 80:7, 80:14, 97:20, 123:12, 126:19 useful 56:19 usefulness 128:6 uses 52:20, 55:15, 60:2 using 23:19, 34:14, 42:10, 75:21, 92:7, 123:19, 128:15 utilize 89:12 utterback 3:21 V validity 15:4, 16:13, 17:19, 19:3 value 56:17, 82:11, 98:13, 116:7 values 56:20, 82:5, 104:15, 105:9, 106:10, 107:10 various 25:21, 37:10, 38:4, 53:19, 54:6, 79:20, 80:8 vary 77:14, 78:18 vehicle 61:4, 80:7 venable 3:6 verbal 87:4	versa 39:16 version 99:4 versus 106:22 via 32:9 vice 39:16 video 6:17 viewpoint 112:17 virtually 1:14, 2:2, 135:15 viscosity 42:11, 45:12, 46:12, 46:19, 66:1 visual 7:7 vitamin 128:6 vitro 73:1 W wait 51:11, 74:7 waived 135:19 walk 34:13, 68:11, 87:5 walked 72:7 want 6:20, 8:2, 13:20, 21:3, 30:17, 47:1, 53:20, 58:3, 59:11, 78:4, 89:16, 118:18, 118:19, 121:16, 122:5, 122:6 wanted 5:17, 7:2, 7:3,	7:7 washington 3:8 water 42:6, 42:19, 42:22, 90:15, 90:18, 90:21, 91:2 wax 73:22, 74:6, 74:11, 74:13, 74:17, 74:21, 75:3 waxes 45:1, 94:6, 96:1, 96:3, 102:18 way 55:16, 57:11, 67:21, 81:16, 95:7, 97:18, 101:4, 135:24 we'll 67:7, 122:8 we're 8:17, 25:16, 57:15, 70:3, 70:8, 70:9, 80:21, 81:10, 92:12, 115:15 we've 35:17, 46:21, 72:7, 76:21, 89:6, 118:14 website 4:17, 4:18, 111:7, 111:11, 111:17 websites 130:4 weight 65:18, 91:18 went 5:22 weren't 35:9, 48:4 wetness 53:12	whatever 116:9 whereof 135:27 whether 21:15, 26:5, 65:4, 66:3, 66:8, 66:11, 77:13, 106:8, 116:11, 128:8, 131:2, 133:2, 133:3 whole 46:16, 53:18, 62:9, 97:3, 97:4, 126:22 within 26:20, 78:17, 98:5, 105:9, 115:9, 135:3 without 66:2, 87:2, 89:6 witness 4:2, 5:3, 29:12, 47:3, 89:18, 94:17, 96:15, 106:2, 107:5, 113:17, 118:22, 120:4, 121:4, 121:18, 125:2, 125:15, 128:1, 134:5, 135:5, 135:10, 135:27 wondering 112:7 word 59:12, 60:3, 61:12, 61:14, 61:16, 61:20, 73:18, 81:19, 96:16, 126:2, 128:9, 128:11, 128:18, 129:1, 133:18 wording 59:22
--	---	---	--

words 46:11, 126:18 work 23:21, 24:18, 24:22, 25:5, 27:13, 29:9, 34:8, 35:14, 36:13, 36:18, 36:20, 37:3, 37:5, 37:13, 37:15, 38:9, 129:8, 129:21, 130:12, 131:1, 132:10, 132:20, 133:8 worked 35:3, 38:1, 101:5 working 29:21, 30:9, 98:1 works 121:19 worth 129:18 wouldn't 28:6, 41:4 writing 50:2, 77:8 written 39:5, 119:11 Y yeah 5:11, 28:2, 78:20, 79:19, 90:21, 91:6, 92:6, 96:14, 97:13, 107:11, 112:7, 117:11 year 27:14, 38:15, 43:9 years 12:5, 39:11, 132:22, 133:22 yep 89:3	yesterday 32:14, 33:5 yield 128:12 yourself 8:2, 21:8, 26:18, 35:1 Z zag 99:18, 100:1 zinc 53:7, 53:8, 53:9, 53:10, 54:1, 60:20, 60:22, 62:10, 62:13, 62:16, 62:18, 62:21, 63:2, 63:7, 63:16, 63:19, 64:8, 64:18, 64:22, 65:22, 66:17, 66:22, 67:4, 67:11, 67:14, 67:18, 68:9, 68:18, 83:16, 83:21, 84:4, 84:9, 84:12, 84:14, 85:3, 85:7, 85:20, 86:15, 87:2, 87:9, 87:13, 88:5, 88:10, 88:16, 88:21, 103:8, 103:9, 103:11, 109:9, 109:12, 109:14 zirconium 100:4, 100:16, 103:5 zn0 88:11 zoom 32:9 zoomed 112:6, 117:7 . .3939 3:18	.4000 3:9 0 0.5 83:15 00104 14:16 00105 16:4 01173 17:10 01174 18:16 08 1:16, 135:16 1 1 134:6, 135:17 1,891 118:4 1.5 83:16 10 4:18, 24:7, 25:17, 60:3, 68:20, 74:2, 74:3, 74:7, 74:8, 102:2, 102:4, 105:2, 111:6, 119:5 10,905,647 13:10 10,966,915 13:6 100 118:4 1001 21:4 1003 21:5, 21:19, 21:22, 57:20, 57:22 1004 21:5, 21:19, 22:5, 80:19 1005 21:6, 123:2	1006 21:6, 21:19, 22:10, 55:4, 92:10 1007 21:6, 22:13, 111:3, 111:8 1008 21:6, 22:16, 55:4, 103:19 1009 21:6, 22:19, 119:3, 119:4 1010 21:6 1011 21:6 1012 21:6 1013 21:10 103 4:16 1036 21:12 1044 22:22 1058 127:4 1067 124:20, 125:1, 125:2 11 4:19, 20:4, 20:7, 20:18, 21:3, 24:7, 64:11, 68:14, 71:4, 71:15, 108:7, 108:19, 111:18, 117:21, 123:2, 123:4, 123:5 11,497,706 13:13 11,540,999 12:22 111 4:17, 4:18,
--	---	---	--

Transcript of Dr. Bozena B. Michniak-Kohn
Conducted on April 17, 2025

165

19:7 12 4:20, 102:3, 102:4, 108:18, 109:17, 109:21, 124:21, 127:7 123 4:19 127 4:20 13 127:5 132 124:7 135 1:21 14 4:9, 93:9 15 4:10, 69:2, 73:8, 73:20, 87:12, 104:15, 105:2, 110:19, 110:22 15188 21:20 15219 3:17 17 1:15, 4:11, 18:3, 19:9, 71:16, 135:16, 135:28 18 4:12 19 108:18, 110:2, 110:5, 110:6 1946 123:16 1950 42:1 1980 38:16, 38:18 2 2 21:16	2.5 83:5, 83:12 2/4/31 135:32 20 30:4, 64:18, 64:22, 66:22, 67:4, 68:9, 68:18, 84:12, 90:18, 90:21, 99:12, 99:13, 103:11, 108:11, 108:21, 109:12 200 132:3 20001 3:8 2009 21:16 2016 116:15 2017 40:2 202.344 3:9 2024 14:16, 15:10, 16:4, 16:20, 17:10, 18:4, 18:16, 19:10, 27:15, 27:20, 28:1, 28:9, 28:19, 28:22, 29:1, 29:3, 29:5, 47:16, 48:10, 48:18, 49:3, 49:22, 50:7, 50:15, 51:8, 122:15 2025 1:15, 135:16, 135:28 23 59:14, 59:16 25 93:5 254 4:16, 22:16,	103:22, 104:3, 133:5, 133:8 26 38:20, 104:11, 104:12, 104:19 27 60:4 28 15:10, 16:19 29 122:15 3 30 11:22, 62:13, 87:16, 87:20, 102:1, 102:6 300 75:19, 76:9 32 41:8 34 41:21, 83:8 37 91:17 370 99:12, 99:13, 99:14, 100:9 39 44:17 4 40 132:22, 133:22 400 76:8 41 76:20 412.391 3:18 42 84:6 4250 1:22 43 52:7 432 76:18, 77:18	44 54:21 45 55:2, 87:22, 91:17, 99:16, 99:21 4500 3:16 5 50 30:15, 102:1, 102:6, 134:6, 135:17 500 3:15, 76:8 518 4:15, 22:10, 92:8, 92:12, 92:18, 92:20, 93:19, 102:22, 132:16, 132:19 53 68:22 55 91:10, 91:14 550 75:19, 76:9 57 91:17 579888 1:20 58 4:13 59 88:8 6 60 75:15, 75:16 600 3:7 64 87:8 647 4:11, 13:11, 17:1, 17:4, 17:6, 17:12,
--	--	--	---

17:15, 17:20, 123:13, 125:7 66 86:4 7 706 4:12, 13:14, 18:7, 18:9, 18:11, 18:18, 18:21, 19:4, 127:12 7167 100:12, 100:15 7738 126:9 8 81 4:14 82 16:17 89 15:6 9 9 1:16, 135:16 915 4:10, 13:7, 15:14, 15:19, 15:21, 16:6, 16:9, 16:14 92 4:15 98 69:5, 69:11, 72:8 999 4:9, 13:3, 13:16, 13:18, 13:21, 14:1, 14:8, 14:18, 14:21, 15:4, 20:3, 21:2, 21:4, 24:8, 24:12, 33:8, 33:18, 34:14,	38:21, 41:12, 51:18, 54:3	
---	------------------------------	--