

J. Lercher

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

-----  
UMICORE AG & CO., KG,  
Petitioner, Case IPR2015-01121  
Patent 7,601,662

vs.

BASF CORPORATION,  
Patent Owner.

-----  
UMICORE AG & CO. KG,  
Petitioner, Case IPR2015-01123  
Patent 8,404,203 B2

vs.

BASF CORPORATION,  
Patent Owner.

-----  
(Caption Contined on Next Page)

DEPOSITION OF JOHANNES LERCHER

New York, New York

Monday, January 18, 2016

Reported by:

THOMAS A. FERNICOLA, RPR

JOB NO. 102317

1 J. Lercher  
 2 -----  
 3 UMICORE AG & CO. KG,  
 4 Petitioner, Case IPR2015-01124  
 5 Patent 8,404,203 B2  
 6 vs.  
 7 BASF CORPORATION,  
 8 Patent Owner.  
 9 -----  
 10 UMICORE AG & CO. KG,  
 11 Petitioner, Case IPR2015-01125  
 12 Patent 7,601,662  
 13 vs.  
 14 BASF CORPORATION,  
 15 Patent Owner.  
 16 -----

17 Monday, January 18, 2016  
 18 9:00 a.m.

19 DEPOSITION of JOHANNES LERCHER, held at  
 20 the Law Offices of Orrick, Herrington &  
 21 Sutcliffe, LLP, 51 West 52nd Street, New York,  
 22 New York, before Thomas A. Fernicola, a  
 23 Registered Professional Reporter and Notary  
 24 Public of the State of New York.  
 25

1 J. Lercher  
 2 A P P E A R A N C E S :  
 3  
 4 ORRICK, HERRINGTON & SUTCLIFFE  
 5 Attorneys for Plaintiffs  
 6 51 West 52nd Street  
 7 New York, New York  
 8 BY: ELIZABETH GARDNER, ESQ.  
 9  
 10  
 11 WEIL, GOTSHAL & MANGES  
 12 Attorneys for Patent Owner  
 13 1300 Eye Street, NW  
 14 Washington, D.C. 20005  
 15 BY: ANISH DESAI, ESQ.  
 16  
 17  
 18  
 19  
 20

21 ALSO PRESENT:  
 22 Dr. Stefan Retzon, Umicore.  
 23  
 24  
 25

1 J. Lercher  
 2 JOHANNES LERCHER,  
 3 called as a witness, having been duly sworn by a  
 4 Notary Public, was examined and testified as  
 5 follows:  
 6 BY THE REPORTER:  
 7 Q Please state your full name and  
 8 address for the record.  
 9 A Johannes Lercher,  
 10 Adabert-Stifter-Street, 39 85521 Ottobrunn,  
 11 Germany.  
 12  
 13 BY MR. DESAI:  
 14 Q I'll just introduce myself. I'm  
 15 Anish Desai here from Weil, Gotshal, on behalf  
 16 of BASF Corporation.  
 17 MS. GARDNER: I'm Elizabeth Gardner,  
 18 representing Umicore.  
 19 MR. RETZON: I'm Stefan Retzon, an  
 20 attorney at Umicore.  
 21 BY MR. DESAI:  
 22 Q Good morning.  
 23 Where are you currently employed,  
 24 Dr. Lercher?  
 25 A I'm currently employed by The

1 J. Lercher  
 2 Technische Universitaet Muenchen.  
 3 Q And you currently reside in Germany?  
 4 A I do currently reside in Germany.  
 5 Q Have you ever been deposed before?  
 6 A Deposed in a U.S. Court, no; in this  
 7 setting, yes.  
 8 Q Why don't I just give you a quick  
 9 sort of rundown on the basics.  
 10 Everything we're going to be saying  
 11 today is being record by the court reporter,  
 12 so it is important that you and I don't talk  
 13 over each other.  
 14 I'll do my best to let you finish  
 15 your answer before I start my next question,  
 16 and if you would also do your best to wait  
 17 until I've completed my question before you  
 18 start answering.  
 19 The other thing is because  
 20 everything is being recorded, you'll have to  
 21 give verbal answers to questions. So try and  
 22 avoid nodding your head and shaking your head  
 23 and stick with yesses and nos and anything in  
 24 between.  
 25 If you want to take a break, just

1 J. Lercher  
 2 let me know, we'll take a break.  
 3 A I will.  
 4 Q And, of course, if any question I  
 5 ask is not clear to you, please let me know,  
 6 and I'll do my best to rephrase the question.  
 7 A Thank you.  
 8 Q Sitting beside you are a stack of  
 9 exhibits. The first two should be the two  
 10 patents that are at issue, which are the '662  
 11 patent and the '203 patent.  
 12 A Yes.  
 13 Q And then there are four declarations  
 14 right there that you have submitted on behalf  
 15 of Umicore; correct?  
 16 A Correct.  
 17 Q Do you want to just take a quick  
 18 minute to just flip through them and make sure  
 19 they're the correct copies --  
 20 MS. GARDNER: Objection to form.  
 21 Q -- or that you recognize them?  
 22 A I guess I do.  
 23 Q Okay.  
 24 In your report, you refer to a  
 25 series of exhibits that are also cited in the

1 J. Lercher  
 2 exhibits that were cited in your petition were  
 3 given to you by Umicore's attorneys?  
 4 MS. GARDNER: Objection to form.  
 5 A Can you be more precise what you  
 6 mean by this?  
 7 Q Sure.  
 8 You said that you were given a set  
 9 of literature; correct?  
 10 A Yes.  
 11 Q Who gave you that set of literature?  
 12 A I don't recall. I think, in part,  
 13 these were transmitted by email. I guess it  
 14 was Patrick Herman.  
 15 Q The reason I'm asking, I'm just  
 16 curious if there's literature that you've  
 17 referred to and examined as part of your  
 18 declaration that you searched for and found on  
 19 your own?  
 20 MS. GARDNER: Objection to form.  
 21 A I told you that I'm active in  
 22 zeolite research, therefore, I do always look  
 23 at the literature. I may have come across, I  
 24 may have read papers. For the arguments that  
 25 I'm making, that literature which is present

1 J. Lercher  
 2 petition that was filed by Umicore. They were  
 3 Exhibits 1002 through 1016.  
 4 And I'm just curious if there are  
 5 any other documents that you relied on in  
 6 forming your opinions that are not cited as  
 7 exhibits?  
 8 A When forming an opinion, you have a  
 9 standard state of knowledge that you have in  
 10 your profession. So I would not recall, but I  
 11 would also not exclude any documents that I  
 12 may have considered when forming that opinion,  
 13 and we may discuss this.  
 14 Q Sitting here right now, can you  
 15 think of any specific document that you used  
 16 to form your opinions but did not cite as an  
 17 exhibit to your report?  
 18 A I would not recall at present.  
 19 Q Of the exhibits that were cited in  
 20 your declaration, how were they selected, the  
 21 patents and publications?  
 22 A I have been given a set of  
 23 literature to consider, and I have read the  
 24 literature and I have evaluated them.  
 25 Q So is it fair to say that all the

1 J. Lercher  
 2 here suffices.  
 3 Q You were aware of the recent history  
 4 of the '662 patent; correct?  
 5 A I am aware.  
 6 Q You were retained by Johnson Matthey  
 7 in that re-examination to provide an expert  
 8 opinion regarding the '662 patent; correct?  
 9 A I have been retained by  
 10 Johnson Matthey to provide an expert opinion  
 11 on specific selected questions from  
 12 Johnson Matthey.  
 13 Q In the reexamination of the '662  
 14 patent, you submitted at least two  
 15 declarations; is that right?  
 16 A That is correct.  
 17 Q How much total compensation did you  
 18 receive from Johnson Matthey in that matter?  
 19 A I'm sorry, I don't recall.  
 20 Q How much have you been compensated  
 21 to date by Umicore in this matter?  
 22 A To date, nothing because I have not  
 23 billed.  
 24 Q Okay.  
 25 Approximately how many hours have

1 J. Lercher  
 2 you spent working on this matter for Umicore?  
 3 A Working on this matter,  
 4 approximately close to a hundred.  
 5 Q And I think you -- probably in your  
 6 report, do you have an hourly rate?  
 7 A Yes. 400 euros.  
 8 Q Is that your standard hourly rate?  
 9 A That's my standard hourly rate.  
 10 Q Aside from the consulting  
 11 relationship you have with Umicore with  
 12 respect to these IPRs, are you doing any other  
 13 work for Umicore at present?  
 14 A No.  
 15 Q Have you in the past done any work  
 16 for Umicore?  
 17 A No.  
 18 Q Do you receive any funding from  
 19 Umicore?  
 20 A No.  
 21 Q So aside from the compensation  
 22 you've received or will receive from Umicore  
 23 in this matter, you have not previously  
 24 received any compensation from Umicore?  
 25 A No.

1 J. Lercher  
 2 diesel engine?  
 3 A Can you be a little more precise in  
 4 this? Do you mean whether I personally was  
 5 aware by 2007 or whether I'm aware of  
 6 technology prior to 2007?  
 7 Q I think sitting here today, I'm  
 8 asking if you were aware of what was going on  
 9 before 2007.  
 10 A I am aware today of what's going on  
 11 before 2007.  
 12 Q So then prior to 2007, what types of  
 13 catalysts had been used for SCR of nitrogen  
 14 oxides in a diesel engine?  
 15 A At that point the technology was in  
 16 a state of emergence. It has been developed,  
 17 but around this time you had three classes of  
 18 catalysts that were considered and under  
 19 development: One was the vanadium based  
 20 materials mostly considered for trucks which  
 21 were derived from technology that were -- let  
 22 me take a step -- that were derived from  
 23 technology and exhaust emission of stationary  
 24 sources.  
 25 Let me take a step back and be a

1 J. Lercher  
 2 Q That might be confusing.  
 3 You mean that you have not received  
 4 any compensation?  
 5 A I mean I have not received any  
 6 compensation.  
 7 Q Do you currently have an existing  
 8 consulting relationship with Johnson Matthey?  
 9 A No.  
 10 Q Are you currently receiving any  
 11 compensation from Johnson Matthey?  
 12 A No.  
 13 Q The '662 patent was filed on  
 14 February 27, 2008, and there's a provisional  
 15 application that was filed a year before on  
 16 February 27, 2007; correct?  
 17 A Yes.  
 18 Q So when I refer to the filing date  
 19 of the '662 patent, I'll be referring to the  
 20 2007 date.  
 21 A Yes.  
 22 Q Prior to the filing date of the '662  
 23 patent, are you aware of what types of  
 24 catalysts had been used for the selective  
 25 catalytic reductions of nitrogen oxides in a

1 J. Lercher  
 2 little bit more precise.  
 3 We have to differentiate in that  
 4 technology from exhaust catalysis for auto  
 5 engines and exhaust catalysis for diesel  
 6 engines or for engines which were operating  
 7 under lean-burn conditions.  
 8 If I confine this to lean-burn  
 9 conditions for the time being, because I think  
 10 this is where we are addressing the discussion  
 11 in the deposition today, there were these  
 12 three technologies that I'm referring, so I'm  
 13 leaving out the classic three-way catalysts  
 14 under those conditions.  
 15 Now, in addition to the vanadium,  
 16 there was discussion on hydrocarbon selective  
 17 reduction using zeolite catalysts with  
 18 transition metal oxides.  
 19 There was discussion about NOX  
 20 reduction using ammonia with transition metal  
 21 loaded zeolites, and there was discussion  
 22 about storing NOX intermittently or storing  
 23 NOX and reducing the storage materials  
 24 intermittently as a storage reduction catalyst  
 25 technology.

1 J. Lercher

2 So, in total, it may have been four  
3 different types of technologies that were  
4 considered.

5 Q So to summarize your answer a bit,  
6 you identified four technologies, which were  
7 the vanadium based, the hydrocarbon with metal  
8 exchange zeolites, NOX with ammonia using  
9 metal exchange zeolites, and storage based --

10 A Storage reduction-based catalysis.

11 Q Which of those four had been used  
12 commercially before 2007?

13 MS. GARDNER: Objection to form.

14 A Can you be more precise on this one?

15 Q What don't you understand about my  
16 question?

17 A When you say which technology has  
18 been used commercially under those conditions,  
19 the word "commercially" could have several  
20 meanings. It could mean that it was in a  
21 commercial development stage. It could mean  
22 it was commercially deployed.

23 To be honest, by 2007, I am a  
24 researcher who looks at fundamental aspects,  
25 so I would not really follow in detail which

1 J. Lercher

2 of the technology was composed at which time.

3 Q I'll try my question to be more  
4 precise. And if you don't know, you can say  
5 you don't know.

6 Which of those four technologies had  
7 been commercially deployed by 2007?

8 MS. GARDNER: Objection to form.

9 Q If you know.

10 A Honestly, I'm not sure of which one  
11 has been deployed to which extent.

12 Q Okay.

13 The vanadium-based catalyst, do you  
14 know if that had been commercially deployed  
15 prior to 2007?

16 A There has been in stationary  
17 sources, yes, of course.

18 In automobiles -- for large trucks,  
19 I know it was considered seriously, and I  
20 think it was implemented in some models for  
21 heavy trucks by MIN in Germany.

22 Q Now, you've used the word  
23 "stationary" a few times, and I probably  
24 should ask you about that. What do you mean  
25 by "stationary"?

1 J. Lercher

2 A Stationary are the exhaust produced  
3 by a power plant in burning fossil fuel or  
4 renewable fuels, any carbon based fuels.

5 Q And you've been sort of  
6 distinguishing exhaust treatment from  
7 stationary sources from exhaust treatment in  
8 mobile applications?

9 A Yes, I do.

10 MS. GARDNER: Objection to form.

11 Q Would you agree that before 2007, it  
12 was well known that the hydrothermal stability  
13 of zeolites was an obstacle to their use in  
14 diesel engines?

15 A The hydrothermal stability of  
16 zeolites is always an obstacle for every  
17 implementation. It's always a challenge.  
18 Whether it's surfaces or not depends on the  
19 zeolite material. It has been always cited to  
20 be a problem.

21 Q Are you aware of any specific  
22 publications to cite hydrothermal stability of  
23 zeolites as an obstacle to their use in diesel  
24 engines prior to 2007?

25 A Prior to 2007, one of the easiest

1 J. Lercher

2 sources would be, for example, reviewed by  
3 Centi on NOX reduction.

4 Q I think I have a copy of that. This  
5 will be Exhibit 2012.

6 A Thank you.

7 Q Is this the paper you were referring  
8 to?

9 A It is the paper that I'm referring  
10 to, that you're referring to.

11 Q At the bottom, there's a label with  
12 an Exhibit 2012 and then a dot?

13 A Yes.

14 Q Why don't you go to page, it's .005.

15 A Yes.

16 Q And then at the bottom of the first  
17 paragraph, there's a sentence that starts --  
18 it's sort of like 3/4 of the way down,  
19 "Indeed." Do you see that? "Indeed several  
20 unresolved problems limit..."

21 A "Indeed several unresolved problems  
22 limit the outlook for successful use of  
23 zeolites in automotive converters."

24 Q The first one that is listed is  
25 hydrothermal stability; correct?

# Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

## Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

## Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

## Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

## API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

## LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

## FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.