

Picture: Michael Seifert

lichtblick

ISSUE 52 | APRIL 2023

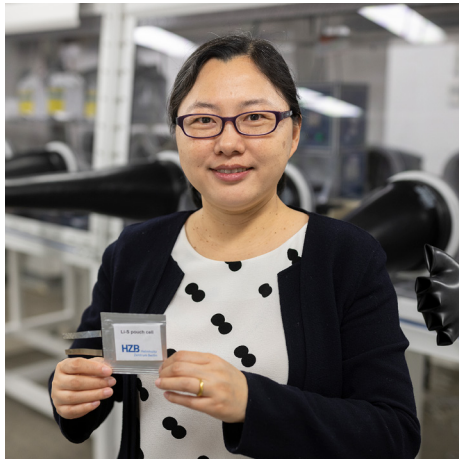
Yan Lu:
Research for the
batteries of the future

PAGE 4

EN

TABLE OF CONTENTS

COVER STORY 4



Research for the batteries of the future

Portrait of our expert Yan Lu

CONVERSATION 8



“We are currently in a decisive phase for photovoltaics”

Interview of Rutger Schlatmann

IN THE SPOTLIGHT 16



HZB on social media

Stefanie Kodalle gives an insight into what makes social media work successful

NEWS IN ONE PIC:

World record in efficiency 7

BESSY III REACHES FIRST MILESTONE:

Rough concept (Pre-CDR) submitted 13

HZB IN NUMBERS:

Who reads our news? 15

New Ombudspeople 12

New head of Finance at HZB 16

Alternatives to Windows 17

IMPRESSUM

PUBLISHER: Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Hahn-Meitner-Platz 1, 14109 Berlin; **EDITORIAL STAFF:** communications department, lichtblick@helmholtz-berlin.de, Tel.: (030) 80 62-0; **EDITORIAL MANAGEMENT:** Silvia Zerbe (editor-in-chief), Dr. Ina Helms (v.i.S.d.P.); **JOURNALISTS FOR THIS ISSUE:** Kilian Kirchgessner, Stefanie Kodalle, Florentine Krawatzek (fk), Dr. Antonia Rötger (arö), Silvia Zerbe (sz); **ENGLISH VERSION:** Florentine Krawatzek and Peter Gregg (translation); **EDITORIAL DEADLINE:** 01.03.2023; **LAYOUT AND PRODUCTION:** Josch Politt, graphilox; **PRINT PUBLICATION** (in German): 300 magazines; **PRINTED** on 100% recycled paper, FSC-certified and awarded with the label Blauer Umweltengel and EU-Ecolabel:



Picture puzzle 19

Recipes from all over the world 20

Notes of HZB 21

Three questions for Bernd Rech



How did Bernd Rech celebrate our new world record for tandem solar cells? And how quickly can we lose it again? These were the questions we asked our scientific director. For the Diversity month in May, we wanted also to know what is particularly important to him when it comes to diversity. Watch the interview now!

Interview conducted by Stefanie Kodalle and Silvia Zerbe.



Yan Lu:

“We develop lithium-sulphur batteries that can store much more energy than conventional batteries.”

Yan Lu in the lab. Here, rechargeable batteries with a flat design (like in mobile phones) can be produced - a unique opportunity for research facilities and universities in Berlin and Brandenburg.

“Research allows me to dive deep into problems”

At home in the evenings, she'll often find herself going back to her desk. When her seven-year-old daughter is fast asleep, Yan Lu explores through publications or funding applications for new research ideas. “I like that I have the peace to think in the evenings,” the chemist says. Her daytime schedules are busy. Yan Lu heads the HZB Department of Electrochemical Energy Storage. She holds a professorship for polymer-based hybrid materials at the University of Potsdam and has just received a call to a W3 professorship in Jena. “I have lots of meetings to attend and sometimes they can become really drawn out,” she says with a smile. Her department researches novel materials for rechargeable batteries, and this field is booming. HZB is involved in mega research projects with many different partners representing all kinds of disciplines from chemistry and materials research to sensor technology. “We have to discuss in great depth with our partners. And this produces brilliant ideas that are truly new, but it also takes time.” Between these meetings, Yan Lu typically sits at her desk. She rarely comes into the

With her team Yan Lu develops new types of batteries. It is said she has “golden hands” and is able to carry out extremely fiddly syntheses. She likes to pass on her experience to young people.

lab and, if so, then mostly when there is a problem. “Then, we look where the problem might be and sometimes I can provide a tip thanks to years of practical experience.” Yan Lu is an expert in the synthesis of colloid particles – these are carbon or polymer-based particles with diameters of just a few hundred nanometres. They have incredibly diverse potential for applications. They can deliver drugs in the body, for example, or find their use in battery electrodes.

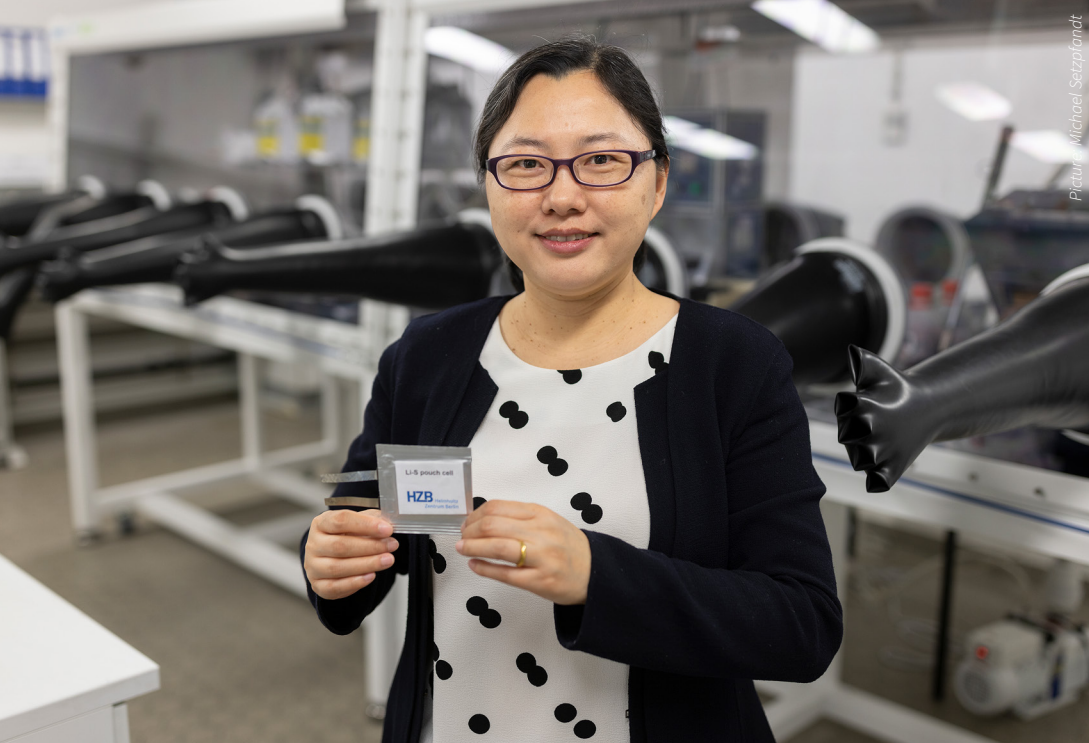
Yan Lu is from China and majored in chemistry in Shanghai, where she already had excellent mentors to teach her many tools of the trade. She moved to Germany to do her PhD, buried herself in the synthesis of colloids at TU Dresden and then started working as a postdoc under Prof. Matthias Ballauff in Bayreuth. When Ballauff moved to HZB in 2009, she transferred with him and built up her own workgroup. She has since started her

little family and has experienced first-hand the infamous “two-body” problem that many scientist couples face: both people finding a good job in the same location is only a rare piece of luck. Her husband is also a successful researcher who now leads a large team in Stockholm. She organises her daughter's daily routine most by herself. “Luise goes to a German primary school. On Saturdays, I take her to Chinese class so that she can get to know both cultures,” Yan Lu tells us. And after that, they might also go to a Chinese Restaurant in Berlin; and some of them are really good, says Yan Lu.

In her circle of colleagues, they say she has “golden hands”, because she gets even the trickiest syntheses to work. “Experience is worth a great deal in material synthesis,” she is convinced. The professor knows that students these days no longer have as much opportunity to train their skills in the lab. “That is always an issue in course planning at a university. But supervising and organising practical lessons is complicated, and it was especially difficult during the times of Covid,” she says. Each semester, she offers practical lessons on the synthesis of colloid

“There are still many open questions about the development of innovative battery types, which is why we need the fundamental research on this.”

Yan Lu



Yan Lu holds a lithium sulphur battery, which was produced at HZB. Every year the team makes progress in the synthesis, which it reports on in five to six high-ranking publications.

particles in the lab in Wannsee: “I get to know the students better there, and I can ask them directly if they want to come and work with us.”

In the autumn of 2019, her mentor Matthias Ballauff retired, after which Yan Lu took over the leadership of the department under the new name “Electrochemical Energy Storage”. An important focus now is rechargeable lithium-sulfur batteries, which have a much higher energy density than conventional lithium-ion batteries. For this technology, Yan Lu and her colleagues are developing

environmentally friendly cathode materials such as metal-oxide, metal-nitrite or metal-sulfide nanoparticles. Her experience from colloid research helps in precisely controlling the morphology of these cathodes. “Every year, we have five to six high ranking publications on synthesis results like these,” Yan Lu says. “There are still many open questions about the development of innovative battery types, which is why we need the fundamental research on this.” But the results of this research can produce ideas that industries will pick up and run with.

What advice would she give to young people who are thinking about going into research? Yan Lu ponders for a moment: “It really has to be a genuine desire; you have to love doing research, because there is little time for anything else,” she believes. But in the commercial sector, as well, experts are in higher demand than ever, so there should hardly be any problem in finding a suitable job. As for herself, Yan Lu has achieved her dream: “Research allows me to really dive deep into a problem. That is my luxury.”

■ BY ANTONIA RÖTGER

PROJECTS IN BATTERY RESEARCH

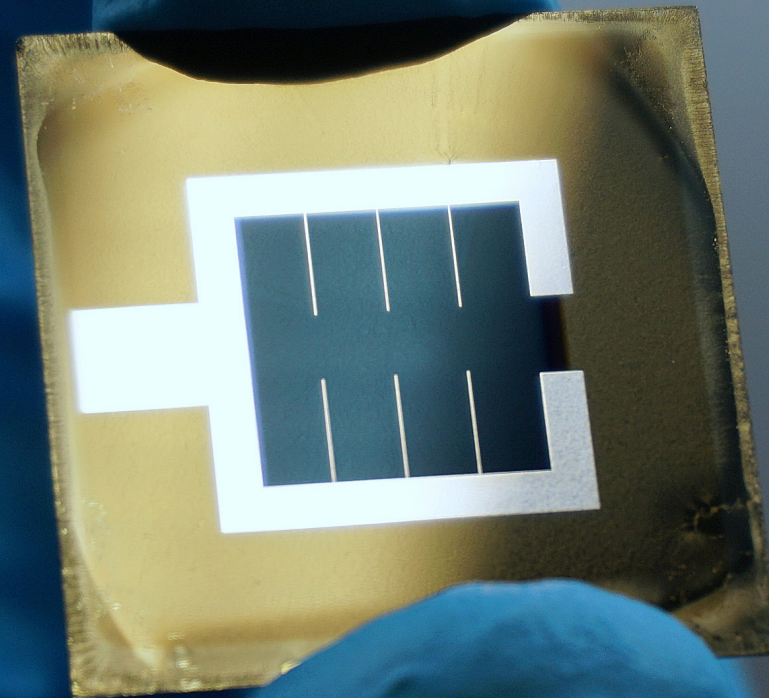
Efficient, affordable and preferably long-lasting batteries are needed for the energy transition. In the BMBF project SkaLiS, the department is working on synthesising carbon nanoparticles that are hollow inside. Then, in the laboratory on the Wannsee campus, these cathodes are packed into a so-called pouch cell, which is about the size and thickness of a credit card. This format is especially practical for industrial and commercial purposes. The team led by Sebastian Risse is investigating the charging and discharging processes of these pouch cell batteries. Other teams are analysing how the material changes over the course of the charging cycles. In the BMBF project FestPoLiS, they are looking into solid state batteries that make do without any toxic liquids for the electrolyte. A solid polymer compound performs this function instead. Yan Lu intends to develop the right cathode materials for this, together with teams from TU Braunschweig that have a lot of experience with solid state batteries. HZB is coordinating this project.



Federal Chancellor Olaf Scholz:

“Just in December, a team of Helmholtz Centre in Berlin set a new world record for the efficiency of solar cells. And now, just a few weeks later, our companies are already setting up pilot lines for the use of these tandem cells.”

53rd World Economic Forum Annual Meeting
Davos, January 2023



Picture: Johannes Beckedahl/Lea Zimmermann/HZB

World champion in efficiency: congratulations to the teams!

The current world record for tandem solar cells made of silicon and perovskite has once again been held by HZB since December 2022. The new tandem solar cell converts 32.5 percent of incident solar radiation into electrical energy. This is a significant leap and shows the huge potential of this technology. The news of the world record spread like wildfire shortly before

Christmas. The news piece on the HZB website has been clicked on almost 50,000 times so far. The message even reached the Chancellor's Office and Davos. We warmly congratulate the participating teams from HZB on this success!

(sz)



Picture: Michael Setzpfandt

CONVERSATION WITH RUTGER SCHLATMANN

“We are currently in a decisive phase for photovoltaics”

The HZB researcher Rutger Schlatmann has been elected as the new Chair of the platform ETIP-PV, which brings together representatives of science, industry and politics from all over Europe. We interviewed him about the current boom – and about why the photovoltaics ship has not yet sailed for the EU.

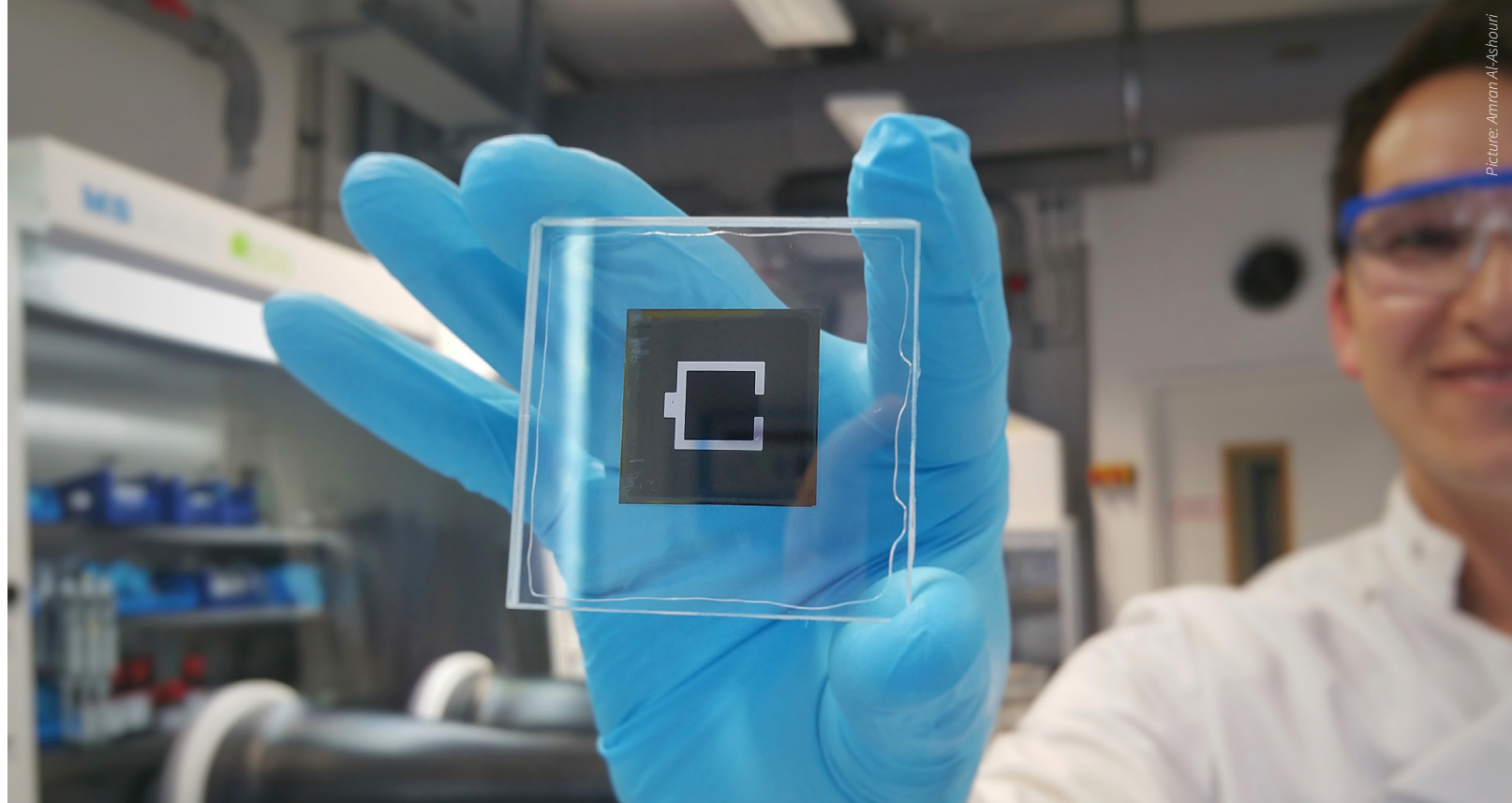
Rutger Schlatmann, when you specialised in photovoltaics some decades ago, it was a niche topic. Did you already have an inkling back then, that it would ever come to the boom we are experiencing today?

Rutger Schlatmann (With a laugh): I wish I had such clairvoyant abilities! There were some indications: for example, photovoltaics had grown continuously over the previous 20 years and it was becoming increasingly clear how important it is to avert the climate crisis. So, I was confident that the market would

gain momentum in Europe. But, that it would come to two such deep ruptures as the coronavirus pandemic and the war in Ukraine – I did not see those coming.

What do these crises have to do with photovoltaics – except of course for the increased demand for new energy sources?

We have long glorified globalisation. Now, all of a sudden, we recognise that we, in Europe, can't even produce as simple an item as a face mask without relying on a supply chain



Picture: Amran Al-Ashour

There is enormous potential for technological developments, for example through the use of tandem solar cells. The research landscape in Europe and Germany is particularly strong, says Rutger Schlatmann.

“Solar electricity is more economical than electricity from oil or gas and, as probably goes without saying, it’s much cheaper than nuclear energy.”

Rutger Schlatmann

that extends all the way back into the Far East. And of course that applies even more to complex products such as medicines, semiconductor chips and, indeed, solar cells.

That would be the geopolitical perspective. What is the technological outlook on photovoltaics today?

Back when I got into research, practically nobody took the field seriously. But, for a number of years now, solar electricity has had the lowest production costs – it is more

economical than electricity from oil or gas and, as probably goes without saying, it’s much cheaper than nuclear energy. And that, despite the fact that there’s still enormous potential for advancements in the technology. We are currently in a decisive phase for photovoltaics, and the good news is: the research landscape in Europe, and in Germany especially, has become much stronger and larger than one might have expected given the industrial capacities that still exist in this field here in Germany.

But we’re seeing strong output from photovoltaics researchers in China as well, aren’t we?

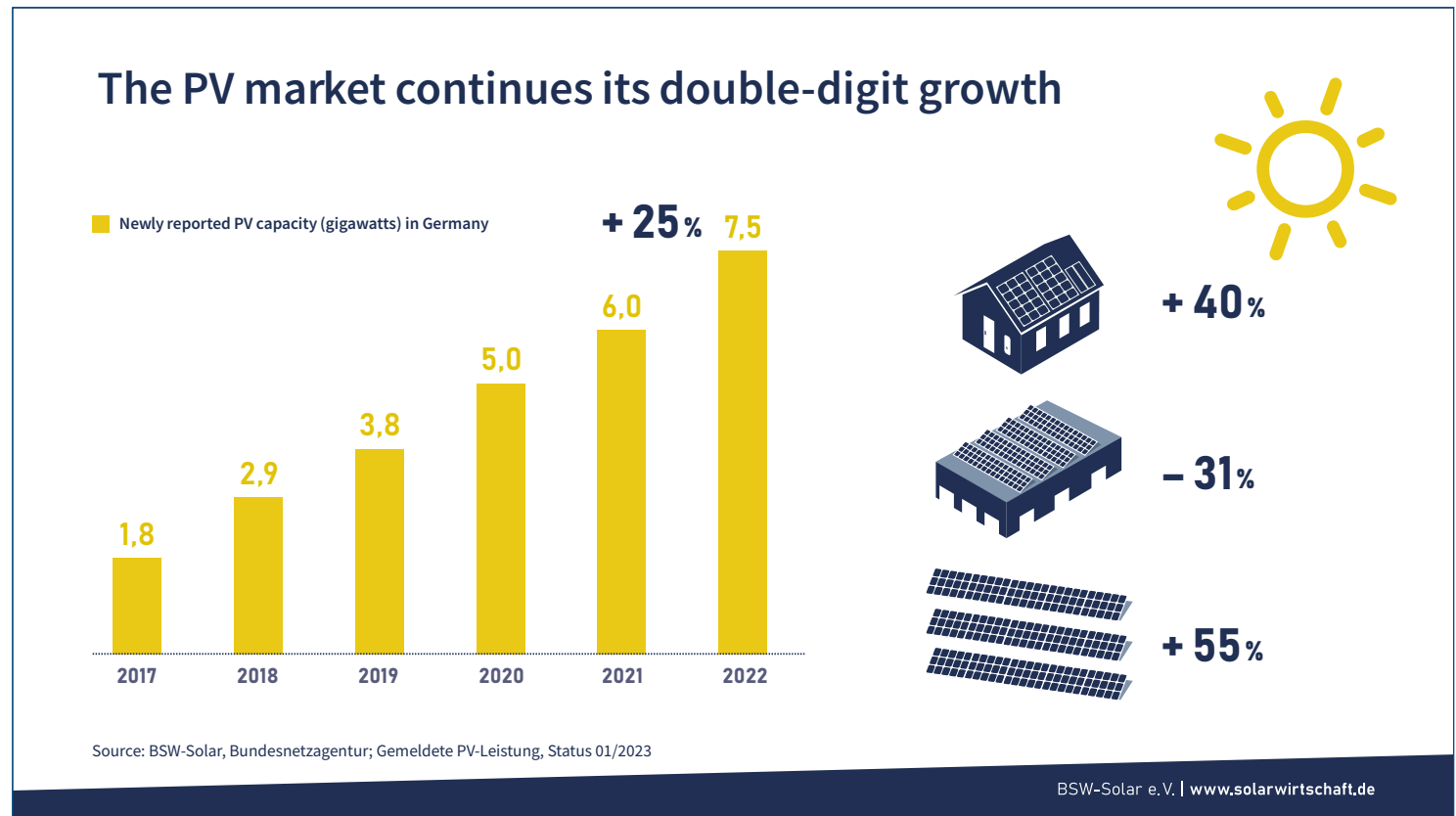
Most definitely, and we should not underestimate that in terms of quantity or quality. But we’re in the lead for certain technologies that are currently in very high demand because Germany has been investing a lot of research funding into them over the past ten years. Perovskite tandem solar cells are a good example: these have two overlaid layers, a silicon layer and a perovskite layer, each of

The expansion of photovoltaics is progressing. Nevertheless the increase must be fast. By 2030 15.6 GWs of solar power should be generated, otherwise there is a risk of an electricity shortfall.

which converts different colour components of sunlight into energy, and that makes them work at much higher efficiency than conventional solar cells. There's been incredible progress in their efficiency, but also in their stability. At HZB alone, we have recruited several groups and talents dedicated to this technology. And it's like that not only in research, by the way, but also in the commercial sector.

That brings me to the next question. A few weeks ago, you entered office as the Chair of the European Technology and Innovation Platform for Photovoltaics. What new things have you learned since then?

More than anything, I have gained deeper insights into the regulatory and political conditions. An awful lot has started moving in this field.



The dominant topic is of course the Inflation Reduction Act of the US, a humungous programme aimed at supporting the establishment of production capacities. The investment opportunities are so attractive that, when talking with companies these days, I keep hearing that they would actually like to invest in Europe, but that the differences are so great that they're in fact better off

producing in the US and then shipping the goods to Europe from there.

Couldn't we, in Europe, just skip the traditional silicon solar cell phase and go straight on to scaling up production of tandem technology?

No, there are two reasons why that won't work. The first is that the ship has not yet

sailed for silicon cells; quite the opposite. And, secondly, we first have to build the entire value creation chain in Europe back up from scratch – and for silicon technology that would be okay. The solar companies need extremely transparent glass, for example. Companies that can produce such a thing do exist in Europe, but they shut this segment down a long time ago because there

“I can imagine that the European Commission, as well as the national governments, are well aware of how great the pressure to act is.”

Rutger Schlatmann

was no demand. And the same goes for so many other components you need to manufacture PV modules. Luckily, the knowhow for all those things still exists – but production has to be ramped up again first.

So, are the necessary steps actually being taken towards this?

It never ceases to amaze me how politics works in the EU – how some countries can block a sensible bill, for example, just so that they can get more for themselves out of the negotiations. Although, I can imagine that the European Commission, as well as the national governments, are well aware of how great the pressure to act is. Yet there are also rays of hope: in battery production, for example, an investment climate has set in that has made Europe attractive again for

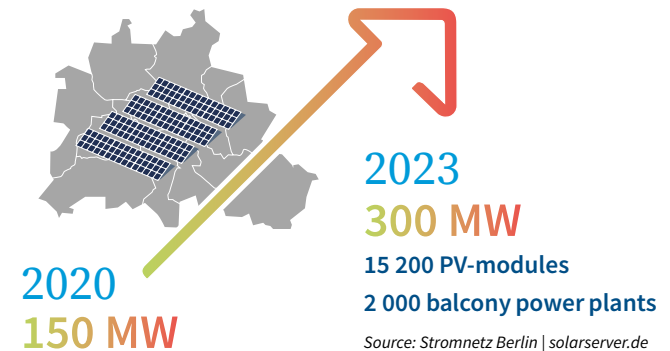
an industry that had in fact long since migrated away.

Would you say you are more optimistic or more pessimistic about the PV industry, now that you have had several chances to look behind the scenes from your new office?

Without a doubt: I am more optimistic.

Interviewed by Kilian Kirchgeßner.

SOLAR CAPACITY GROWTH IN BERLIN



RUTGER SCHLATMANN

heads the Competence Centre Photovoltaics Berlin (PVcomB) at Helmholtz-Zentrum Berlin and teaches as a professor at HTW Berlin University of Applied Sciences. The Dutch professor studied physics in Groningen and Amsterdam. He worked for many years in responsible positions in industrial research before coming to HZB in 2008. Since October 2022, he has been the Chair of the European Technology and Innovation Platform for Photovoltaics (ETIP PV). Research institutes, industrial companies and political figures have joined together in this advisory body of the European Commission.

There for you – our new Ombudspersons

Manfred Weiss, Sebastian Fiechter, Annette Pietzsch and Michael Tovar are available as ombudspersons for good scientific practice since January 2023.

They are the first point of contact for dealing with possible scientific misconduct. They also advise on questions regarding the supervision of young researchers. The ombudspersons act

with the greatest possible confidentiality. To avoid bias, persons from different scientific areas at HZB have been appointed for this purpose. For Manfred Weiss and Sebastian Fiechter it is a second term as ombudspersons, Annette Pietzsch and Michael Tovar are new. (arö)



“In my first term, I helped adapting the DFG guidelines on good scientific practice to the circumstances at HZB. We can now build on that. I was also editor of a scientific journal for many years and have a lot of experience with scientific publications, which I am happy to pass on.”

Manfred Weiss



“For me, it is important that good scientific practice is lived - at all levels, from the bachelor student to the head of the institute. I also want to be approachable for younger scientists.”

Annette Pietzsch



“Good research rests on many shoulders. Good scientific practice means that this is fairly reflected in publications. I know that conflicts can arise in this process and would like to help resolve them.”

Michael Tovar



“Sometimes it is not possible to solve problems on your own. That's where we can often help in a concrete way. My motto is ‘trust and secrecy.’”

Sebastian Fiechter



You can reach the Ombudspersons at this e-mail address:
ombudsperson@helmholtz-berlin.de

BESSY III reaches first milestone

A successor source to BESSY II should be ready for operation in the mid-2030s. Now a first stage has been reached with the creation of a rough concept.

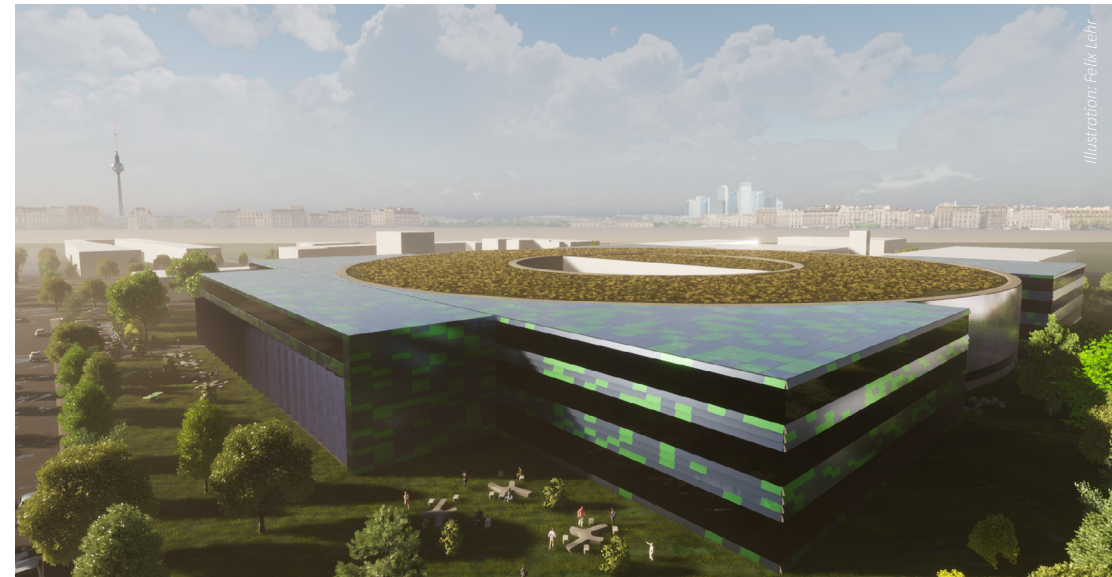
This year our BESSY II light source celebrates its 25th birthday. Even though it may still seem young, this is a proud age for a 3rd generation synchrotron. A modernisation programme is currently underway with BESSY II+ to keep the facility fit for the coming decade and to build a bridge to the successor source BESSY III (more info on the right).

For BESSY III, HZB is striving to offer unique experimental opportunities worldwide that will accelerate the gain of knowledge in many fields of research, especially in energy research. Getting such a project off the ground requires several stages. First, a rough concept needs to be created depicting the functionality of a 4th generation light source, the so-called [Pre-Conceptual Design Report \(CDR\)](#). HZB submitted this report to the Helmholtz Association at the end of 2022. In the Pre-CDR the authors recorded the needs of HZB research, strategic partners

(Physikalisch-Technische Bundesanstalt (PTB), Max Planck Society and Federal Institute for Materials Research and Testing (BAM)), guest researchers and other stakeholders. In addition, they have worked out the unique selling points, the core topics and the embedding in the Adlershof Science Campus and the Berlin research landscape. “The initial feedback from the scientific evaluation gives us real tailwind and is very encouraging. Now our concept will be discussed and evaluated within the Helmholtz Association in March,” say project coordinators Markus Sauborn and Andreas Jankowiak.

The next stage is a detailed CDR, which should be completed by summer 2025 at the latest.

■ BY FLORENTINE KRAWATZEK



Vision BESSY III: This is what our sustainable new light source could look like.

WHAT IS BESSY II+?

BESSY II+ covers various projects that will upgrade the technical infrastructure on the one hand and create new experimental possibilities for operando investigations on the other. In mid-March 2023, a kick-off meeting brought many participants together at HZB to launch this modernisation period.

INTERVIEW OF OUR SOCIAL MEDIA MANAGER

“Social media is more than copy and paste”

What is HZB’s most successful social media channel?

Stefanie Kodalle: Our most successful channel is LinkedIn. We have 11,000 followers on it, with nothing like that on the other channels, and we are gaining new followers every month. Our LinkedIn community is highly active. Nowhere else do we get as many comments and responses as on LinkedIn.

Where do you get the topics for social media from?

Primarily, the content comes from the Communications department: I share HZB news and science highlights, event announcements and awards that

we learn about. I’m very grateful when people send in nice photos from their work in the lab. For Instagram, especially, I need interesting motifs taken from research. So, keep them coming – preferably with a short description of what you can see in the picture.

How do you manage all the different social media channels?

Each channel works differently. It’s not just that the image formats are different; you also have to appeal differently to the followers. You can’t just “copy and paste” everything. This is important to make a professional appearance on social media.

Do we also pay money to place topics on social media? Keyword: sponsored posts?

No, we don’t do that. We achieve our reach organically, which has worked well for us so far. But you can tell that we are dependent on the algorithms of the platform operators. They decide how well our tweets do in the community. That’s out of our hands.

Is that one reason why HZB is shutting down its Facebook page?

For some years now, our Facebook posts are less and less visible for our followers. The main reason, however, is that we followed the recommendation of the Federal Data Protection Commissioner.

Twitter has become a target of public criticism since its takeover by Elon Musk. Are there any thoughts about switching to Mastodon?

We are watching the situation closely, as is everyone in the Helmholtz-Onliner Network. You have to think a step like that through carefully. Twitter is an important channel for us, with many political and scientific followers. But social media channels are highly dynamic by nature, and you have to re-evaluate them every so often, anyway. Maybe some still remember the Clubhouse hype two years ago? Today there’s only a handful still active on that channel. So I think it’s important not to come to any premature conclusions.

Interviewed by Silvia Zerbe.

STEFANIE KODALLE

is the Social Media Manager in the Communications department. She manages the various channels of HZB, posts news and stays abreast of the current discourse. She gives us an insight into what is involved in all this.



HZB IN NUMBERS

Who reads our news?

To be honest: we don't know much about who reads carefully our news. However, we do compile figures on how many times people click our news pieces, which topics are of particular interest and how many followers we have on our various social media channels. Here we have picked out a few figures.

OUR TOP 3 NEWS PIECES IN 2022

- 1 World record back at HZB: Tandem solar cell achieves 32.5 % efficiency:**
44 326 clicks
- 2 "Workhorse" of silicon photovoltaics combined with perovskite in tandem for the first time:**
7 645 clicks
- 3 Lithium-Sulfur batteries: First multi-modal analysis in pouch cell format:**
7 566 clicks

8 800

8 800 people follow us from both our **Twitter** channels (HZB channel counts 4 600 followers and the BESSY channel has 4 200 followers, as of 23.02.2023). Both Twitter channels continue to develop positively.



39 000

In 2022 people clicked 39 000 times on our news on average **every month**.

4,6

We have published around an average 4,6 news pieces **every week** in 2022. In total this means 244 internal und external news.

2 200

The **most successful piece** on the intranet was „15 young people start their careers at HZB“ – it had 2 200 clicks.

77 000

With 77 000 clicks, December was the month where we noticed the most clicks in 2022 (thanks to the news on the world record).

61

61 % choose to read our news **in German**, 29 % read the news **in English**.



11 100

Our **HZB LinkedIn account** counts 11 100 followers (as of 23.02.2023). Compare to the same period in 2022 we gained 3000 followers.



2 000

On **Instagram** we count 2 000 followers (as of 23.02.2023).



“My new role brings exciting questions”

Florian Wichert has been acting Head of the Finance Department since January 2023. We asked how he approaches this task.

How has it been for you in these first few weeks?

Florian Wichert: I've been at HZB since 2017, working in Controlling until up 2022. Due to staffing and organisational changes in the department, I was asked at the end of last year if I would like to take over as acting Head of Finance. For me, it was a sudden jump into the deep end. The leadership role is new for me. I've got fewer operational tasks and more strategic tasks. I also take care of HR issues. It's an exciting challenge! The training I'm receiving at the Helmholtz Academy is getting me fit for the new role.

What are the big topics in your department?

We're going through a time ridden with crises, with the pandemic, war and inflation. We have to make sure we are as realistic as possible when calculating the cost increases into the budget. We want to communicate this topic more clearly internally, so that we are all on the same page.

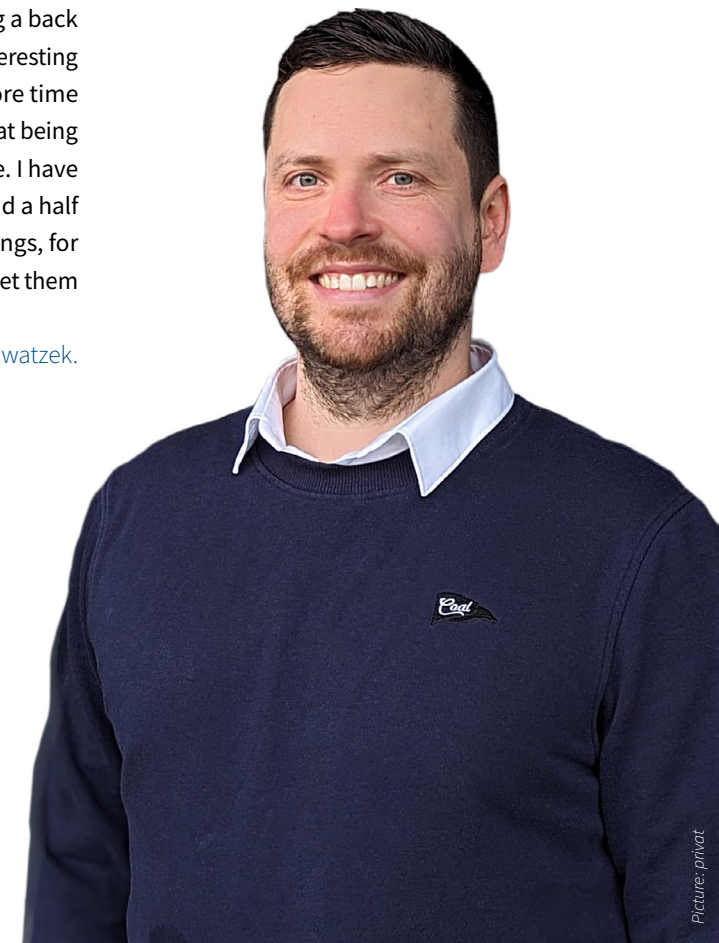
Another major topic is the conversion of our SAP system. There's a follow-on system that we expect to introduce in 2025 to 2026. We have to prepare the data migration, but at the same time we also want to consider: what do we want to change, what do we want to keep? Many structures have grown historically. Such a change is a lot of work for our team, but is also an opportunity to reorganise topics and rethink processes.

How are you approaching your new function? What are your goals?

I enjoy working with numbers and creating

analyses with Excel, but that's taking a back seat now. My new role comes with interesting problems to solve. I'm spending more time thinking about management and what being in a leadership position means to me. I have already learned a lot in these one and a half months, like setting up onsite meetings, for example. I give my team priority and let them know: my door is always open.

Interviewed by [Florentine Krawatzek](#).





Alternatives to Windows, Office & Co.

Together with employees, IT is looking for suitable solutions to reduce dependence on large providers.

The Windows operating system and Microsoft Office products are standard just about everywhere, including at HZB. It seems insanely difficult to change to anything else. But there are good arguments as to why we should. In the project “MALTHGF“ (Microsoft ALTERNATIVES in the Helmholtz-Gemeinschaft), all Helmholtz centres have joined forces to seek out alternatives to Microsoft products. “Instead of Windows, we could install Linux operating systems, which are open source and thus free of licensing costs,” says the project coordinator Ingo Heinzl, Head of the HZB Application Services Department.



Even for office products like Word, PowerPoint or Excel, there are free, open source alternatives such as LibreOffice. It is not just about the cost, although HZB does have to pay a good half a million euros each year just for Microsoft product licences. “Data protection and IT security can often be guaranteed much better when using open

source products, because they let you know and decide exactly what happens with your data,” Heinzl stresses. “This digital sovereignty has become even more important to me than the costs. By that, I mean the ability to act independently, self-sufficiently and safely in the digital world – and open source plays a decisive role in that.”

So, there are IT teams at the Helmholtz centres now working on defining the bases for making decisions. This needs the employees to be involved so that they can recognise potential problems before they happen: for example, some important programs only run under Windows, such as Origin, which the researchers use for data visualisation, and the much used MS Office PowerPoint is not fully compatible with the LibreOffice equivalent Impress. In February, Heinzl and the team therefore invited employees from various HZB departments to test out the Linux environment Cinnamon as well as the most important LibreOffice programs. The survey that followed revealed: all participants can imagine working with Linux/Cinnamon and LibreOffice. But the devil is in the details, and a change to new standards must be prepared carefully.

■ BY ANTONIA RÖTGER



ARTEM MUSIIENKO

has received a Maria Skłodowska-Curie post-doctoral fellowship. In the group of Antonio Abate, he will be researching a project that aims to increase the efficiency of lead-free perovskite solar cells to beyond 20%.



Changes in the Works Council: Upon the departure of the former chair Jörg Heuser, the HZB Works Council held a new election: **John Schneider** is now the Chair of the Works Council. He is supported by **Lutz Pichl** (Deputy Chair) and **Yvonne Bergmann** (2nd Deputy Chair).

PERSONALIA

RENSKE VAN DER VEEN

Technische Universität Berlin has appointed Renske as a professor in its Institute of Optics and Atomic Physics. At HZB, she heads a research group for Time-Resolved X-Ray Spectroscopy and Electron Microscopy. Together with her group, she researches catalytic processes that make technologies like green hydrogen possible.

HENRIK PRELL

Henrik received an award from Technische Universität Berlin for the best Master's thesis of 2022 in the field of geotechnology. His thesis "Crystal structure variations and opto-electronic properties of alkali doped kesterite-type semiconductors" was jointly supervised at TU Berlin and HZB.

OBITUARY

Barbara Woschnitza

We mourn the loss of Barbara Woschnitza, who passed away on the 7th of February 2023 at the age of 70. She worked in the Personnel department from 1990 to her retirement at the end of 2015. She was a personnel officer with heart and soul. With her professional expertise, she helped HZB through major changes, which she tackled with her forever positive approach. Over the years, Barbara Woschnitza trained many young people in human resources and passed her longstanding experience on to new colleagues. Her door was always open to anyone who needed advice or simply an ear to listen. We will remember her open nature, her genuine interest in other people, her willingness to help, her collegiality and her sense of humour. Barbara Woschnitza had been suffering from a severe illness, which she fought off for a long time with the help of her family and her own great strength. Her passing leaves a big void. We share our condolences with the family and friends of Barbara Woschnitza and express our deepest sympathy.



PICTURE PUZZLE

Working like in a high-security lab: In the clean room, the fluid and interface dynamics are studied with ultra-fast X-rays (LIDUX). Can you find the 7 mistakes? You can win:

1x HZB umbrella, 1 x USB stick, 1 x HZB bag with gummy bears as a consolation prize

Closing date: 15.05.2023



Please mark all the mistakes clearly in the image and send us an email to lichtblick@helmholtz-berlin.de. Alternatively, you can send your solution by internal mail or post to: Helmholtz-Zentrum Berlin, keyword: lichtblick competition, Communications Department, Hahn-Meitner-Platz 1, 14109 Berlin. We will notify the winners by email. With your entry you agree that your name will be published in the next issue. The legal recourse is excluded.

THE WINNERS OF THE LAST ISSUE – THE DRAW HAS DECIDED:

First place: Arne Hoehl

Second place: Tobias Hänel

Third place: Hagen Gerecke



RECIPES FROM ALL OVER THE WORLD

Ingredients (6 people)

For the Salsa Verde:

500 g tomatillos verdes,

3 jalapeños

1 white onion

½ cup chopped coriander

2 garlic cloves

Juice of ½ lime (about 1 tbsp)

1 teaspoon salt

For the Chilaquiles:

12 corn tortillas

3 tablespoons olive oil

½ cup crumbly white cheese

½ cup chopped coriander

¼ cup crème fraîche

1 purple onion - cut into thin rings

1 avocado

1 chicken breast

2 eggs

¡Buen provecho!



Chilaquiles verdes

*With Lucero Yazmin Cobos Becerra from
Colombia*

Shredded Chicken

Poach the chicken breasts until just cooked through (about 10 minutes). When it is cool enough to touch, you can pull it apart with your fingers. Make sure you save the poaching liquid for the salsa.

Salsa Verde

Place the tomatillos, jalapenos and onions in a saucepan. Fill the saucepan with the poaching liquid from the chicken breast and enough water to cover the top of the tomatillos. Bring the water to the boil, reduce the heat, cover the pot and simmer for 10 minutes. Put the content in a blender. Add the coriander, garlic, lime juice and salt. Blend until smooth and set aside.

Tortilla-Chips

Stack the corn tortillas on top of each other and cut them into eighths to make small triangular wedges. Heat the olive oil in a large frying pan over medium heat. Add the cut tortillas and fry for 10 minutes, stirring constantly, until the tortillas are crispy.

Serve the Chilaquiles

Divide the tortilla crisps between two plates, pour the salsa verde covering them and then add the shredded chicken. Sprinkle with the crumbly white cheese, the remaining coriander and spoon the crème fraîche over them. Arrange the avocado slices around the chilaquiles and drizzle with lime juice. Fry the eggs and place them on top of the chilaquiles and serve with purple onion rings on top.



Picture: Lucero Yazmin Cobos Becerra



**Lucero Yazmin Cobos
Becerra**

**Energy and Information
Departement**

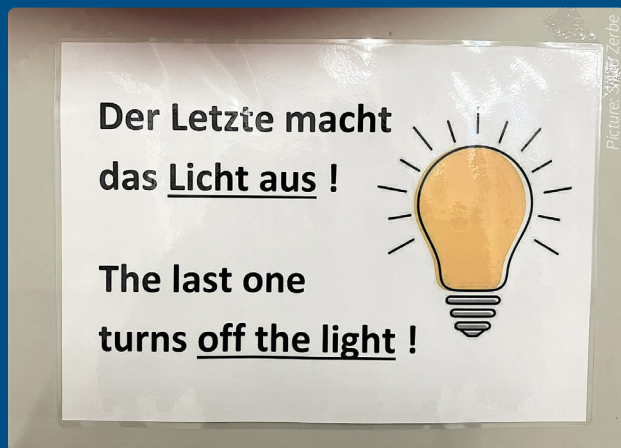
Lucero has been working at HZB since 2018. She coordinates projects seeking breakthroughs in new sustainable fuels technologies.

Picture: Michael Setzpfandt



Notes of HZB

Looking to the future with optimism



Found in the DV-building in Wannsee.

Like in school days



Caught you? This note can be found in the PT-building in Wannsee.

Freedom for Kermit!



This urgent call can be found in the first floor of the BESSY II building in Adlershof.



What funny notes at HZB catch your eye?
Please send them to: lichtblick@helmholtz-berlin.de