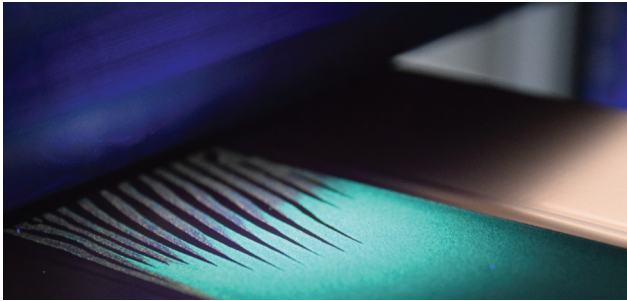


## 17<sup>th</sup> Short Course (in person) Coating and Drying of Thin Films

3(+2)-day short course on fundamentals and applications with practical workshop in the coating and printing lab



**June 15-17, 2026**  
ZEISS Innovation Hub @ KIT  
Hermann-von-Helmholtz-Platz 6  
76344 Eggenstein-Leopoldshafen

## 10<sup>th</sup> Thin Film Technology Forum (virtual) Advances in Processing of Functional Films, Electrodes for Battery, Fuel Cell & Electrolyzer Applications

2-day virtual forum on June 18-19, where renowned scientists will present and discuss recent research results and new trends in industry and academia



**June 18-19, 2026**  
Virtual Thin Film Technology Forum

Organization Team:

Prof. Dr.-Ing. Dr. h. c. Wilhelm Schabel  
Dr.-Ing. Philip Scharfer  
with 31 experts from industry and academia

## Program Short Course and Forum

43 contributions / 33 speakers

### Schedule 15.06.2026 – Short Course Monday

- 08:30** *Registration and check-in*
- 09:00** *Welcome and group introduction*  
Prof. Dr.-Ing. W. Schabel / Dr.-Ing. P. Scharfer (KIT-TFT)
- 10:00** *Rheology of coating fluids*  
Prof. Dr. Norbert Willenbacher (KIT-MVM)
- 11:05** *Coffee break*
- 11:30** *Coating & ink preparation for hydrogen applications*  
Dr.-Ing. Benjamin Schmidt-Hansberg (BASF)
- 12:30** *Lunch break*
- 13:30** *Coatings from industrial perspective*  
Prof. Dr.-Ing. Daniel Eggerath (Jagenberg Converting)
- 14:45** *Premetered coating methods with highlights of slot and curtain coating - Part I*  
Dr. Peter Schweizer (Schweizer Coating Consulting, CH)
- 15:35** *Coffee break*
- 16:00** *Premetered coating methods with highlights of slot and curtain coating - Part II*  
Dr. Peter Schweizer (Schweizer Coating Consulting, CH)
- 16:35** *Fluid flow in coating tools*  
Prof. Dr. Dr. h. c. mult. Franz Durst (FAU Erlangen, em.)
- 19:30** *Social dinner at Enchilada (Waldstraße 63, KA City)*

### Schedule 16.06.2026 – Short Course Tuesday

- 09:00** *Stability of coating flows in two-layer slot dies*  
Alexander Hoffmann M. Sc. (KIT-TFT)
- 09:30** *Fundamentals of (self) metered coatings*  
Prof. Dr. Hadj Benkreira (University of Bradford, UK)
- 10:15** *Gravure and roll coating*  
Prof. Dr. Hadj Benkreira (University of Bradford, UK)
- 10:45** *Coffee break*
- 11:10** *Fundamentals of film drying technology I + II*  
Prof. Dr.-Ing. Wilhelm Schabel (KIT-TFT)
- 12:40** *About sorption in polymeric and porous coatings*  
Philipp Barbig M. Sc. (KIT-TFT)
- 13:00** *Lunch break*
- 14:00** *Fundamentals of latex film formation & drying*  
Prof. Dr. Alex Routh (University of Cambridge, UK)
- 15:00** *About drying of colloidal dispersions*  
Prof. Dr. Alex Routh (University of Cambridge, UK)
- 15:30** *Cracking in drying coatings*  
Prof. Dr. Mahesh S. Tirumkudulu (IIT Bombay, India)
- 16:30** *Coffee break*

- 16:55** *Film drying phenomena and drying studies*  
Prof. Dr.-Ing. Wilhelm Schabel (KIT-TFT)

### Schedule 17.06.2026 – Short Course Wednesday

- 08:30** *Industrial perspectives on curtain & slot die coating*  
Dipl.-Ing. Harald Döll (TSE, CH)
- 09:00** *Homogeneous drying with comb nozzles*  
Dipl.-Ing. Philipp Cavadini (CN Drying Technology GmbH)
- 09:25** *Drying of multicomponent mixtures*  
Dr.-Ing. Philip Scharfer (KIT-TFT)
- 09:50** *Coffee break*
- 10:15** *Simulation and design of industrial thin film dryers*  
Dr.-Ing. Philip Scharfer (KIT-TFT)
- 11:35** *Coating, drying and web handling apps*  
Prof. Dr. Steven Abbott (TCNF, UK)
- 13:00** *Group formation and lunch break*
- 14:00** *Walking to workshop building 717*
- 14:30** *Experimental workshop at the TFT coating and printing laboratory*  
- Rheology & wetting  
- Pilot-scale coating trials  
- Heat and mass transfer coefficients  
- Experimental drying curves
- 16:30** *Walking back to Zeiss Hub*

### Schedule 18.06.2026 – Virtual TFT Forum Thursday

- 09:00** *Welcome and introduction to the 9th TFT Forum*  
Prof. Dr.-Ing. W. Schabel / Dr.-Ing. P. Scharfer (KIT-TFT)
- 09:20** *Rheological characterization of Li-ion battery slurries from a coating engineer's perspective*  
Prof. Dr. Jaewook Nam (Seoul National University, SNU)
- 09:55** *A research factory for battery cell production*  
Prof. Dr. Jens Tübke (KIT-MVM, Director FFB)
- 10:30** *Coffee break*
- 10:55** *Simultaneous double-sided coating of electrodes*  
Alexander Hoffmann M. Sc. (KIT-TFT)
- 11:30** *Process innovations for a sustainable battery cell production*  
Prof. Dr.-Ing. Arno Kwade (Director iPAT, TU Braunschweig)
- 11:55** *Overcoming performance and production bottlenecks in battery electrodes with multilayer curtain coating*  
Dr. Paul Baade (8inks, CH)
- 12:30** *Lunch break*
- 13:30** *Industrial slot-die coating automation*  
Dr.-Ing. Ralf Diehm (RapidEdge Technology GmbH)
- 14:05** *Model-based approach for web handling in battery and fuel cell production: ramp-up acceleration and moisture soft sensor development*  
Prof. Dr.-Ing. Jürgen Fleischer (Director KIT-wbk)

- 14:40** *Optimizing the efficiency of battery electrode drying*  
Jonas Mohacsi M. Sc. (KIT-TFT)
- 15:05** *Coffee break*
- 15:30** *Laser- & IR-based drying of battery electrodes*  
Julian Borho M. Sc. (KIT-TFT)
- 15:55** *Drying towards solvent-reduced slurry systems for battery applications*  
Kevin Ly M. Sc. (KIT-TFT)
- 16:25** *About processing and challenges of sulfidic all-solid-state batteries: from coating to drying*  
Johannes Dörr M. Sc. (KIT-TFT)

#### Schedule 19.06.2026 – Virtual TFT Forum Friday

- 08:30** *From manufacture to series production - Production research for PEM fuel cells*  
Prof. Dr. Markus Hölzle (Director ZSW Ulm)
- 09:05** *Challenges in industrial scale R2R MEA production*  
Ulf Groos (Fraunhofer ISE)
- 09:40** *Functional layers for water electrolysis*  
Dr. rer. nat. Fabian Scheepers (FZ-Jülich)
- 10:15** *Coffee break*
- 10:40** *Processing of catalyst coated membranes for fuel cell applications*  
Linus Janning M. Sc. (KIT-TFT)
- 11:05** *Advances in drying of catalyst layers for PEM fuel cells and electrolyzers*  
Alexandra Decker M. Sc. (KIT-TFT)
- 11:30** *Hierarchical structuring of SiB electrodes*  
David Burger M. Sc. (KIT-TFT)
- 11:55** *Moisture management and post drying during battery electrode production*  
Philipp Barbig M. Sc. (KIT-TFT)
- 12:20** *Drying for electrolyte solvent removal towards safe and efficient battery recycling*  
Lukas Lödige M. Sc. (KIT-TFT)
- 12:45** *TFT Forum closing session*



## Registration fees Short Course and TFT Forum

	Early Bird (until 15.03.26)	later
<b>Short Course &amp; TFT Forum*</b>		
General	€ 1950.– + legal tax	€ 2250.– + legal tax

\*Only the virtual TFT Forum can be participated for a reduced fee of 200 Euro (early bird 100 €).

## Information, Registration and Contact

Organizer:  
KIT Campus Transfer GmbH  
Haid-und-Neu-Straße 7  
76131 Karlsruhe

Registration Short Course and TFT Forum  
[register@course-forum.de](mailto:register@course-forum.de)  
[info@course-forum.de](mailto:info@course-forum.de)

**Note: The Short Course registration includes the registration to the TFT Forum.**

For academia, students, university participants and TFT partners a contingent for "special reduced fees" for the virtual TFT Forum are as well available. Please contact [margit.morvaj@kit-ct.de](mailto:margit.morvaj@kit-ct.de) for further details and registration to "TFT Forum" only.

### Venue for the Short Course

ZEISS Innovation Hub @ KIT  
Hermann-von-Helmholtz-Platz 6  
76344 Eggenstein-Leopoldshafen



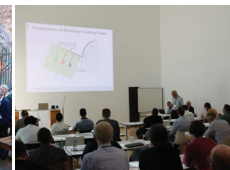
The TFT Forum will take place in a virtual format. After registration, all "login details" of the virtual venue provider for the TFT Forum will be provided via email as soon as available.

### Who has been attending last Short Course

Participants from Germany and **more than 12 EU countries, the US, China, Korea, Taiwan, Japan and others (80 % from industry / average value of the last 12 years)**

### Further information and registration

<http://www.course-forum.de>



## Feedback on the last Short Courses

- "Excellent introduction in coating and drying of films. Demonstrates the complexity, offers better understanding of processes"
- "Very interesting course, lots of information on all coating application! Building bridge from university to industry"
- "Well built-up structure, wide range of theory and application covered, too short time for discussion/break"
- "High level talks with broad range of topics but with good scientific and practical depth, also on application"
- "Hat extrem viel Spaß gemacht! Herzlichen Dank! Theorie und Praxis waren wunderbar abgedeckt"
- "Ich war sehr angetan von den lebhaft präsentierten und informativen Vorträge!"
- "Sehr viele nutzbare Infos"
- "Very good, excellent speakers and good dinner"
- "Excellent foundation and application"

## Feedback workshop

- "Good to see how the theory of the courses works in real life"
- "Experiments were very well prepared and perfectly organized"
- "Interesting, well organized"
- "Good coverage of application of topics covered in course"
- "Interesting material analysis; nice discussions"

## Feedback TFT Forum

- "Broad topics --> nice"
- "Good to see more application topics after the short-course"
- "Good content"
- "Very good selection of topics; all very good speakers"
- "The TFT Forum was an excellent overview and provided appropriate depth for the topics covered"
- "Conference content very good, good electronic presentation and definitely worthy of repetition"

For further information please follow us on:



<https://www.linkedin.com/company/thin-film-technology/>  
<https://www.linkedin.com/company/short-course-tft-forum-advances-in-coating-drying>

## Introduction

The short course [Coating and Drying of Thin Films](#) addresses engineers, scientists and technicians working in the areas of coatings, functional films, direct printing, inkjet printing, sensors, adhesives, paints, automotive coatings, patches, optical foils, tapes, diagnostics, membranes, printed electronics, fuel cells, electrolyzers and battery coatings, who intend to get insight into more fundamental aspects with industrial applications or to deepen their expertise. Leading national and international scientists and experts from academia and industry will report on topics of coating technologies, rheology, preparation of coating fluids and about fundamentals and industrial aspects of drying technology. Coating and printing processes and drying technology are explained interactively by easily accessible examples and in a [practical workshop in the TFT Coating and Printing Lab](#).

The 10<sup>th</sup> [Thin Film Technology Forum](#) will take place [virtually](#) on the last two days, where renowned scientists will present and discuss new trends in industry and academia with a focus on [advances in processing of functional films, electrodes for battery, fuel cell and electrolyzer applications](#).

**The Short Course and the TFT Forum provide a platform for scientific and technical exchange with advanced learning.**



**Prof. Dr.-Ing. Dr. h. c. Wilhelm Schabel (KIT-TFT)** is Professor for Thin Film Technology (TFT) at the Karlsruhe Institute of Technology (KIT). His doctoral thesis about Film Drying was awarded with the Carl Freudenberg Prize, and he early received the Arnold-Eucken and the Scriven Young Investigator Award. In 2007/08, he worked in the R&D department for film and coating applications in industry at Lonza Foils (LOFO High Tech Film GmbH) in Basel (CH). In 2009, he was appointed to the first professorship in Thin Film Technology in Germany, funded by KIT together with BASF, BAYER, and ROCHE, with a financial support of 3 M€ for 5 years. In 2012, Schabel received an honorary doctorate by TU Iasi, and in 2014, he declined a full Professorship (W3) offer from the new Excellence University TU Dresden, and continued his research career at KIT with new TFT labs and new institute affiliations at KIT Campus North and KIT Campus South. In 2021, the University of Cambridge honored him as an EDWARDS FELLOW, in 2022 and 2024 he received two international most prestigious EXCELLENCE IN DRYING AWARD and the TALLMADGE AWARD in the field of Drying & Coating Science. Since 2023, Schabel is President of the European Coating Society (ECS). Schabel's work in Drying & Coating Science has been cited so far more than 6000 times, and many researchers of the TFT group have been honored with numerous (48) national and international AWARDS for best posters, papers, talks for their excellent research.



**Dr.-Ing. Philip Scharfer (KIT-TFT)** is head of the TFT group at KIT together with Prof. Schabel. He received his PhD in process engineering from the University of Karlsruhe (TH) in 2009. Dr. Scharfer is an expert in the fields of drying and thermodynamics of thin films. He deals with measuring methods for the investigation of polymer film drying and develops numerical simulation tools for industrial dryer applications. Since 2009, Dr. Scharfer is member of the scientific committee of the European Coating Symposium (ECS), since 2012 member of the Board of Directors of the International Society of Coating Science and Technology (ISCST). In 2014, he was awarded with the L. E. Scriven Young Investigator Award by the ISCST. Dr. Scharfer is former Vice President Europe of the ISCST and organized ECS 2009 (Karlsruhe) and ECS 2019 (Heidelberg) as Chairman together with Prof. Schabel.



**Dr. Peter M. Schweizer (Schweizer Coating Consulting, CH)** received his PhD in Mechanical Engineering from the Swiss Federal Institute of Technology in 1979, and he did postdoctoral research in coating flows at the University of Minnesota with Prof. Scriven from 1979 – 1980. From 1981 – 1986, Dr. Schweizer worked in the Coating Flow Research Group at Kodak in Rochester, New York, and from 1987 – 1996, he worked at ILFORD in Fribourg, Switzerland. From 1997 – 2000, Dr. Schweizer was Managing Director of TSE Troller Schweizer Engineering in Switzerland. From 2001 - 2016, he worked for Polytype Converting in Fribourg, Switzerland. Since 2016, he is heading his own company called Schweizer Coating Consulting GmbH. In 1997, Dr. Schweizer co-edited the book entitled Liquid Film Coating, and in 2022, he published the book entitled Premetered Coating Methods. In 2006, he received the John Tallmadge Award from International Society of Coating Science and Technology, and from 2018 - 2023 he acted as President of the European Coating Society (ECS).



**Prof. Dr. Norbert Willenbacher (KIT-MVM)** is head of the Institute of Mechanical Process Engineering and Mechanics at Karlsruhe Institute of Technology (KIT) since 2004. He received his diploma degree in Physics and his PhD from the University of Mainz. After his dissertation at the Max-Planck-Institute for Polymer Research he joined BASF SE as a research associate in the fields of rheology of complex fluids and adhesion of soft polymers for 15 years. Prof. Willenbacher is member of the advisory board of the German Society of Rheology, assigned member of the ProcessNet Technical Committee on Rheology, and member of the Editorial Board of Materials and Electronic Materials.



**Dr.-Ing. Benjamin Hansberg (BASF SE)** is a principal scientist for Coating and Film Processing at BASF. His work mainly relates to materials science, processing and manufacturing of novel thin film products in the field of lithium-ion batteries, electrolysis, fuel cells, composites and packaging materials. He holds a PhD in Chemical Engineering (Karlsruhe Institute of Technology) and worked at the University of Cambridge and the start-up Eight19 on the commercialization of organic photovoltaics before joining BASF.



**Prof. Dr.-Ing. Daniel Eggerath (Jagenberg Converting Solutions GmbH)** completed his mechanical engineering degree at the Technical University of Darmstadt (2007), and earned his PhD in curtain coating at the University of Erlangen-Nuremberg (2012). He held roles at FMP Technology GmbH (2008-2018), including Technical Director and CEO. He worked at Kroenert GmbH, did his MBA in Hamburg (2012-2014) and taught at the Munich University of Applied Sciences (2014-2023). Prof. Eggerath has a strong focus on coating and drying technology. He has been Managing Director of MeSys GmbH (2020-2023) and, since 2023, Business Unit Manager – Hamburg/Technical Director Energy at Jagenberg Converting Solutions. Since 2026, he is CEO of Jagenberg Converting Solutions. He also serves on the board of Menzerna GmbH.



**Prof. Dr. Hadj Benkreira (Univ. of Bradford, UK)** (CEng, FIChemE, FHEA) obtained his PhD on the Fluid Mechanics of Coating Flows in 1980 under the supervision of Professor WL Wilkinson (CBE, FRS). Following five years of EPSRC postdoctoral research, he joined the academic staff of the University of Bradford in 1985 and was endowed a Personal Research Chair in 1998 for research in Thin Film Coating and in Polymer Processing and became in 2004-2009 Associate Dean for Research. Professor Benkreira is member of several learned societies including the UK EPSRC Peer Review College, the International Society of Coating Science and Technology (ISCST) of which he was the Vice President in 2006-8 and the European Coating Society (ECS), of which he is the current Vice President and member of its steering committee. He has published widely on coating science and technology and is the editor of the Special Issues of the ISCST conferences and a member of the editorial board of the Journal of Coating Research and Technology and Research (JCTR) and the journal Coatings.



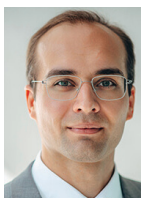
**Prof. Dr. Dr. h. c. mult. Franz Durst (FAU Erlangen, em.)** graduated from Imperial College at the London University and received his doctor's degree in 1972 (PhD). In 1972, he returned to Germany and worked as project leader of various research projects at the Collaborative Research Center 80 at the University of Karlsruhe for ten years. Prof. Durst was offered a C3 professorship for Fluid Mechanics at the University of Karlsruhe in 1978 and was appointed chair of the Institute of Fluid Mechanics at the University of Erlangen-Nuremberg in 1982. In 2006, Prof. Durst retired from the University of Erlangen-Nuremberg and founded the company FMP TECHNOLOGY GMBH, whose CEO he has been until 13 August 2018. He is now still working on solutions for fundamental problems of fluid mechanics like "Extended Navier-Stokes-Equation", Pipe Flow Transition etc.



**Prof. Dr. Alex Routh (University of Cambridge, UK)** received his PhD from Princeton University in the United States in 2000. He has been lecturing in Chemical Engineering at the University of Cambridge since 2006 and was promoted to full professor in 2017. His position is a joint appointment with the Institute for Energy and Environmental Flows; a multi-disciplinary research institute, within the university, spanning the physical sciences. His research is in the field of colloid science and Prof Routh has worked in the areas of encapsulation, dispersion stability, formulation and drying. Within the film drying topic, Prof. Routh has been active for the past 20 years and has published extensively in the specifics of film cracking and the flows within thin films.



**Prof. Dr. Mahesh S. Tirumkudulu (IIT Bombay, India)** is the Larsen & Toubro Chair Professor and Chair of the Department of Chemical Engineering at the Indian Institute of Technology Bombay in Mumbai. He obtained his Bachelor's degree in Technology from IIT Madras in 1995 and a PhD from the City University of New York, USA, in 2001. He joined IIT Bombay in 2003, following a postdoctoral research position at Princeton University. Prof Tirumkudulu works in the area of fluid mechanics and colloids & interfaces with a focus on research problems related to paints & coatings, atomization with applications to combustion and sprays, and biomedical devices. He recently incorporated a biomedical devices company, Rheoheme Private Limited, to commercialize the technologies developed in his lab.



**Dipl.-Ing. Philipp Cavadini (CN Drying Technology GmbH)** graduated in Aerospace Engineering at the University of Stuttgart. In his PhD studies at KIT/TFT until 2015 he investigated surface tension driven convection and the optimisation of impinging jet systems from the viewpoint of homogeneity of the distribution of the heat and mass transfer coefficient. Currently Mr. Cavadini acts as program lead with focus on advanced cooling technologies in the department of "Aero-Thermal and Tools" at Siemens Energy. In secondary employment, he is working on the spin-off creation "CN Drying Technology GmbH", developing highly homogeneous comb nozzle dryers for lab application.



**Dipl.-Ing. Harald Döll (TSE Troller AG, CH)** received his diploma in Mechanical Engineering from the TH Darmstadt in 1989. From 1989 to 1996 he worked as project leader in the field of "web guiding systems". After working in the area of rotogravure printing cylinders for approximately one year, he started with TSE Troller AG in Murgenthal, Switzerland by the end of 1997. In the first 10 years, he was the head of the engineering team; since 2008 as the Technical Director, he is in charge of the entire application technology. Design of premetered coating dies, experiments with customers, start-ups and operator training, technical sales as well as intensive customer support are part of his assignment. Furthermore, he is giving talks at several short courses and international conferences in the US, in Europe and in Asia.



**Prof. Dr. Steven Abbott (TCNF, UK)** has received his Oxford PhD in Chemistry from Harvard University in 1978 and was postdoc in the Nobel Prize winning lab of Prof. J.-M. Lehn in Strasbourg before working for ICI where he was Senior Manager before joining the high-tech coating company Autotype near Oxford as Research Director. He worked closely with coating experts at U. Leeds (appointed Visiting Professor in 2000) and co-created the TopCoat and TopWeb programs for the coating industry. At Autotype he also worked with U Leeds colleagues on the theory of screen printing, transforming an ill-defined art into a science.

#### Speakers at the 10<sup>th</sup> TFT Forum on June 18-19



**Prof. Dr. Jaewook Nam (Seoul National University, Korea)** is professor at the School of Chemical and Biological Engineering at Seoul National University (SNU) and Director of the Energy and Environmental Materials Process Integration Center (EPIC). He earned his B.S. and M.S. from SNU and his Ph.D. from the University of Minnesota, followed by research at Rice University and a faculty position at Sungkyunkwan University. As expert in materials processing, rheology, and numerical analysis, Dr. Nam focuses on continuous coating processes for thin films, critical in applications like battery electrodes and ceramic capacitors. Dr. Nam's accolades include the L.E. Scriven Young Investigator Award (2016), Distinguished Young Rheologist Award from TA instruments (2018), Sinyang Outstanding Young Professor Award from SNU (2020).



**Prof. Dr. Jens Tübke (Fraunhofer FFB & ICT, KIT)** is the institute director of the Fraunhofer Research Factory Battery Cell FFB in Münster and head of the department "Applied Electrochemistry" at the Fraunhofer Institute for Chemical Technology ICT in Pfinztal. In 2015, Jens Tübke was appointed to a professorship in "Materials and Processes for Electrochemical Storage" at the KIT. He studied chemistry with the specialization of technical and macromolecular chemistry at the Martin-Luther-University Halle Wittenberg and finished his PhD in 1997 with the topic "Structure-Properties-Relationships of Polymeric Gel Electrolytes for Lithium-Ion Batteries". From 1997-2000 followed an overseas stay at Kyoto University (Japan) in the working group Prof. Zempachi Ogumi and the Toyota Corp. with the aim of developing electrolyte and electrode materials for lithium-ion polymer batteries for hybrid and electric vehicles. Since 2000, he has been working with Fraunhofer Gesellschaft.



**Prof. Dr.-Ing. Arno Kwade (iPAT, TU Braunschweig)** worked 9 years as a process engineer in leading industrial positions after finishing his doctorate in 1996. In 2005, he was appointed as Professor and Director of the Institute for Particle Technology (iPAT) at Braunschweig University of Technology. His research focus lies on developing deep knowledge, process-structure-property relationships and numerical simulations for processes in which particles are mechanically stressed and formulated, from milling and mechanochemical synthesis over mixing and powder handling and characterization to production of drug products and battery electrodes. Today he is Chairman of the interdisciplinary research centre Battery LabFactory Braunschweig (BLB) and received awards like the Lower Saxony Science Award and the Hans Rumpf medal.



**Dr. Paul Baade (8inks, CH)** is co-CEO of the ETH Zürich spin-off 8inks. He received his PhD in electrical engineering from ETH Zürich in 2021. He completed the Pioneer Fellowship and co-founded 8inks to apply multi-layer curtain coating to the lithium ion battery industry. 8inks provides a manufacturing platform that unlocks mass production of NextGen battery designs and materials. It enables reducing manufacturing costs by 30% and boost battery performance by leaving production constraints behind.



**Dr.-Ing. Ralf Diehm (RapidEdge Technology GmbH)** is Head of Technology and co founder at RapidEdge Technology GmbH, which develops and manufactures specialized coating equipment for efficient production lines. He also co-founded rhc+ consulting GmbH, advising on technical project management and scale up for battery cell manufacturing. After finishing his Dipl.-Ing. in Process Engineering from the Karlsruhe Institute of Technology (KIT) in 2014, he started his doctoral research at KIT's Thin Film Technology (TFT) group, where he investigated the stability and mechanisms of slot die coating—particularly intermittent coating—to define process windows and limitations for roll to roll electrode manufacturing.



**Prof. Dr.-Ing. Jürgen Fleischer (KIT-wbk)** obtained his doctorate at the Institute of Production Science (wbk) in 1989. From 1992 on, he held several leading positions in industry before being appointed professor and head of the wbk at today's Karlsruhe Institute of Technology (KIT) in 2003. Furthermore, he is a visiting professor at Tongji University in Shanghai since 2012. Prof. Fleischer is active in various national and international societies. From 2020 to 2024, Prof. Fleischer was the spokesman of the Battery Competence Cluster "Intelligent Battery Cell Production - InZePro" of the German Federal Ministry of Education and Research. His current scientific research focuses on intelligent production machines and components as well as automated and agile production systems for electromobility.



**Prof. Dr. Markus Hölzle (ZSW)** is member of the ZSW Managing Board and Head of the Electrochemical Energy Technologies division in Ulm since October 2020. He also holds a position as Professor for Energy Storage and Energy Conversion within the faculty of natural sciences at University of Ulm. Before joining ZSW, Prof. Dr. Markus Hölzle held several management positions in BASF in the field of chemical catalysts, fuel cells and battery materials. He received his doctorate in electrochemistry from University of Ulm in 1996. Professor Hölzle is chairperson of the Advisory Board for Green Hydrogen at the Ministry of Environment of the State of Baden-Württemberg, member of the board of directors of KLiB (German industry network Lithium ion batteries) as well as appointed member of the battery advisory board at German Ministry of Science and Education (BMBF).



**Ulf Groos (Fraunhofer ISE)** studied Chemical Engineering at the Technical University of Hamburg-Harburg until 1996. Afterwards he joined Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe until 1997. From 1998 to 1999 he was a consultant at Rudolf Spitzmueller in Gengenbach and gave advice mainly to small and medium sized enterprises regarding their innovation projects. Beginning of 2000 he came to Fraunhofer Institute for Solar Energy Systems ISE in Freiburg. He was responsible for marketing of today's division Hydrogen Technologies until end of 2008. Since beginning of 2008 Ulf Groos is heading the department Fuel Cell with ca. 45 engineers and scientists and additional students. His department is focusing on membrane electrode assemblies in mobile fuel cells with the perspectives on in-situ characterization, ex-situ analytics, production technologies, and modelling.



**Dr. Fabian Scheepers (Forschungszentrum Jülich)** is the head of the 'Functional Layer Systems' group at the Institute of Energy Technologies. He received his PhD in physics from the Faculty of Mechanical Engineering at RWTH Aachen University in 2019. For his thesis on the drying process of catalyst layers for water electrolysis, he was awarded the Bochers' Medal. His research group focuses on the development and manufacturing of catalyst layers, membranes, and transport layers for acidic and alkaline polymer electrolyte membrane water electrolyzers.

## A total of 33 speakers, including 20 external and following PhD students of the TFT group at KIT:



**Jonas Mohacsi M. Sc. (KIT-TFT)** graduated in Mechanical Engineering at KIT in 2019, majoring in Thermodynamics and Energy Technology. After he had completed his bachelor's degree at the University of Stuttgart in Automotive Engineering in 2016, he was able to gain practical experience during an internship at the Porsche AG. In his master's thesis, he dealt with the research of hydrogen investigating aspects of hydrogen safety. Since 2020 he is working as a research assistant in the KIT/TFT group. Predominately, he investigates the drying behavior of lithium-ion battery electrodes with a focus on the development of new drying systems.



**Kevin Ly M. Sc. (KIT-TFT)** completed his master's degree in Chemical Process Engineering at the Karlsruhe Institute of Technology (KIT) in 2019, majoring in Thermal Process Engineering and Chemical Process Engineering. In his master's thesis, he investigated the thermal behavior of lithium-ion batteries and developed a method for the validation of a thermal simulation model. Since 2020, he is working as a research assistant in the KIT/TFT group. His research focuses on the investigation of the drying behavior of lithium-ion battery electrodes.



**Nadine Zimmerer M. Sc. (KIT-TFT)** completed her master's degree in Process Engineering in 2020 at KIT, specializing in Food Process Engineering and Mechanical Process Engineering. During her studies, she got an insight into food drying technologies in her bachelor thesis and then found her way to drying battery anodes for sodium ion batteries in her master thesis. Since 2021, she is working as a research assistant in the KIT/TFT research group. Her research focuses on the processing of functional layers for fuel cells and electrolyzers.



**Alexander Hoffmann M. Sc. (KIT-TFT)** received his master's degree in chemical engineering at the Karlsruhe Institut of Technology (KIT) in 2021 with a focus on heat and mass transport as well as homogeneous and heterogeneous catalysis. Since the completion of his master thesis on the topic of the development of a CFD-model for slot-die coating of lithium-ion battery electrodes, he is working in the coating team in the TFT-group at KIT. Currently, he is researching in the field of single- and multilayer slot-die coating in terms of process stability, coating quality and die-geometry optimizations.



**Lukas Lödige M. Sc. (KIT-TFT)** graduated in process engineering at KIT in 2021, majoring in Thermal Process Engineering and Chemical Process Engineering. Topic of his master's thesis was the investigation of heat and mass transfer in liquid metal heat exchangers. Since 2021, he has been working as a research assistant in the KIT/TFT group. His research focuses on the drying behavior of multicomponent mixtures in complex structures, with the application in advanced recycling processes for lithium-ion batteries.



**David Burger M. Sc. (KIT-TFT)** completed his master's in Process Engineering at KIT in 2022, specializing in Thermal Process Engineering and Fuel Technology. His Bachelor thesis focused on slot die coating for high-speed applications. During an internship at BASF SE, he gained experience in material formulation, coating technologies, and drying strategies. His master's thesis at TFT investigated process parameters affecting drying and property formation in multi-layer cathodes. Since 2022, he has been a research assistant at KIT/TFT, working on microstructure optimization of Sodium (SIB) and Lithium-ion-Battery (LiB) electrodes, focusing on multi-layer designs and rheological additives.



**Julian Borho M. Sc. (KIT-TFT)** completed his studies of Chemical Process Engineering at KIT in 2023, majoring thermal process engineering and bioprocess engineering. In his master thesis, he investigated the influence of radiation-based energy input on process and material parameters of battery electrodes. Since 2023, he is working as a research assistant in the KIT/TFT group, focussing on the investigation of the drying behavior of lithium-ion battery electrodes by using different types of energy input for lithium-ion batteries.



**Philipp Barbig M. Sc. (KIT-TFT)** completed his Master's degree in Process Engineering at KIT in 2023, majoring in thermal and chemical process engineering. In his bachelor thesis he investigated the adsorption enhanced water gas shift reaction in micro reactors at KIT. He completed his Master's thesis at TFT, investigating the post drying process for Lithium Ion battery anodes in the context of humidity management. Since July 2023, he works as a research assistant in the Thin Film Technology group. His research focuses on the sorption and kinetic mechanisms in porous media, consisting of different phases.

## Additional speakers and workshop instructors



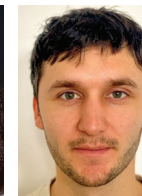
Linus Janning  
(since 2023)



Johannes Dörr  
(since 2024)



Alexandra Decker  
(since 2025)



Mika Stricker  
(since 2026)