

# PRESS RELEASE

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## Stefan Kaskel appointed Distinguished Visiting Professor

### Beijing Tsinghua University recognizes Dresden chemist

**(Dresden, 16.09.2019) Professor Stefan Kaskel received high honors from renowned Tsinghua. The Beijing University appointed him Distinguished Visiting Professor. He was awarded the three-year title on the basis of many years of successful cooperation.**

Stefan Kaskel, head of Inorganic Chemistry I at Technische Universität Dresden and head of the Chemical Surface Technology business unit at the Fraunhofer Institute for Material and Beam Technology IWS, will be Distinguished Visiting Professor for the next three years. The renowned Beijing Tsinghua University awarded him the title on August 14, 2019 for many years of joint work in the development of new energy storage devices and battery materials. "It is a special award that fills me with great joy," emphasizes Stefan Kaskel. For him, the guest professorship is both a great honor and a challenge: "The dynamics at Tsinghua University are impressive and a great encouragement to accelerate innovative technologies for energy system transformation in the German market. I would like to use the visiting professorship by further expanding our cooperation with Tsinghua University in our field of work." Thus, Kaskel and Qiang Zhang, Professor at the Department of Chemical Engineering at the Chinese University, initiated the first international conference on lithium-sulfur batteries in Beijing from August 12 to 15, 2019.

### About Stefan Kaskel

German chemist Stefan Kaskel is head of the business unit Chemical Surface Technology at Fraunhofer IWS and is the Chair of Inorganic Chemistry I at the University of Excellence TU Dresden. He is also currently coordinating the Saxon battery center "BamoSa", a network of university and industrial institute partners in Saxony who develop innovative materials for next-generation batteries. Stefan Kaskel is among the world's renowned experts in metal-organic scaffold compounds. After studying chemistry and completing his doctorate at the Eberhard Karls University in Tübingen, he was a Feodor Lynen fellow at the Alexander von Humboldt Foundation at the Ames Laboratory (DOE) and the Iowa State University in Ames, Iowa, where he investigated intermetallic phases. He worked on the design and function of novel porous materials

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#### Head of Corporate Communications

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#### Business Unit Manager Chemical Surface Technology

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at the Max Planck Institute for Coal Research in Mühlheim a. d. Ruhr and received his habilitation from Ruhr University Bochum as a group leader at the Max Planck Institute for Coal Research. In 2002 he received the BMBF Young Investigators Award in Nanotechnology. In 2004 he accepted the call to Dresden. Stefan Kaskel is a member of the Society of German Chemists, of the American Chemical Society and a Fellow of the Royal Chemical Society. For 2016 he was awarded the JSPS Award of the Japan Society for the Promotion of Science. In the year 2019, he has also become a European Academy of Sciences member.

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**About Tsinghua University**

Tsinghua is one of the most renowned universities in China. In teaching, research and innovation, the institution is committed to the progress and well-being of the nation and the world. Tsinghua University was founded in 1911. After China turned to the world in 1978, it developed at a rapid pace into a comprehensive research university. Tsinghua currently has 20 schools and 58 departments in Natural Sciences, Engineering, Humanities, Law, Medicine, History, Philosophy, Economics, Management, Education and Arts. Keeping to the motto "self-discipline and social commitment" and the spirit of "action speaks louder than words", Tsinghua University is dedicated to the well-being of Chinese society and global development. An important focus is on promoting global citizens who will thrive in today's world and take the leadership role of tomorrow. Tsinghua strives for the highest level of education and research by developing innovative solutions that help solve urgent problems in China and the world.

**About the Business Unit Chemical Surface Technology at Fraunhofer IWS**

The business unit Chemical Surface Technology focuses on next-generation batteries. Central research topics include electromobility and stationary energy storage. The scientists design methods for fast, efficient and reliable battery manufacturing; they focus not only on lithium-sulfur technology, but also on other innovative approaches, such as solid-state batteries. They rely on an in-depth understanding of the chemical processes inside the battery. This is the basis for IWS scientists to develop adapted system technology, monitoring and characterization methods to quickly analyze processes and coatings of varying dimensions by means of imaging techniques. For surface analysis, the team combines detailed technical expertise in system design with sophisticated materials knowledge. No matter whether coatings or functional materials are developed, the team has profound knowledge of the physical properties and

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The **Fraunhofer Institute for Material and Beam Technology IWS Dresden** stands for innovations in laser and surface technology. As an institute of the Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V., IWS offers one stop solutions ranging from the development of new processes to implementation into production up to application-oriented support. The fields of systems technology and process simulation complement the core competencies. The business fields of Fraunhofer IWS include PVD and nanotechnology, chemical surface technology, thermal surface technology, generation and printing, joining, laser ablation and separation as well as microtechnology. The competence field of material characterization and testing supports the research activities. At Westsächsische Hochschule Zwickau, IWS runs the Fraunhofer Application Center for Optical Metrology and Surface Technologies AZOM. The Fraunhofer project group at the Dortmunder OberflächenCentrum DOC® is also integrated into the Dresden Institute. The main cooperation partners in the USA include the Center for Coatings and Diamond Technologies (CCD) at Michigan State University in East Lansing and the Center for Laser Applications (CLA) in Plymouth, Michigan. Fraunhofer IWS employs around 450 people at its headquarters in Dresden.

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application characteristics. The business unit also offers customized methods for surface evaluation, such as optical inspection by means of hyperspectral imaging.

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**About Technische Universität Dresden**

Technische Universität Dresden (TUD) is one of the top universities in Germany and Europe. Strong in research and considered excellent with respect to the range and the quality of degree programmes it offers, it is also closely interconnected with culture, business and society. As a modern university with a broad array of disciplines and with its five schools it has a diverse scientific spectrum that only few other German universities are able to match. TUD is Saxony's largest university with approximately 32,400 students and 8,300 employees – among them 600 professors. Since 2012, TU Dresden has been one of eleven Universities of Excellence in Germany. It was able to successfully defend this title on July 19, 2019.

**About the Department of Inorganic Chemistry at TU Dresden**

The Department of Inorganic Chemistry consists of the three chairs: Inorganic Chemistry I, Inorganic Chemistry II and Inorganic Molecular Chemistry with more than 80 employees. The department also houses an associate professor and the honorary professorships of Chemistry of Inorganic Materials and Chemistry of Metals. Stefan Kaskel has held the Chair of Inorganic Chemistry I since 2004, which focuses on research into modern inorganic materials for energy system transformation, including battery and photovoltaic materials, environmental and electrocatalysis. With more than 50 employees, the interdisciplinary research team's spectrum ranges from basic research to industrial application.

**Find more about future batteries: Two days, two workshops! On November 18 and 19, 2019, Fraunhofer IWS will host the "Carbon Electrode Materials" and the "Lithium-Metal-Anodes: Processing and Integration in Next-Generation Batteries" in Dresden.**

**More information: [www.iws.fraunhofer.de/materials-for-energy](http://www.iws.fraunhofer.de/materials-for-energy).**

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**Stefan Kaskel holds the professorship for Inorganic Chemistry I at Technische Universität Dresden and is Business Unit Manager Chemical Surface Technology at the Fraunhofer Institute for Material and Beam Technology IWS. As of now, he wears the title "Distinguished Visiting Professor" of the renowned Beijing Tsinghua University as well.**

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