

Letter from the Editor

Tiny things being huge

For some time now the ‘nano-topic’ has been a big issue in academia and industry alike. We now have the ability to measure phenomena at the ‘nano-scale’ and to synthesize ‘nano-materials’ with completely different characteristics. This leads not only to new scientific achievements, but also to creating more value for companies active in the ‘nano-field’. Those who expected the ‘nano-hype’ to be short-lived obviously erred. As an interdisciplinary trigger for biology, chemistry, engineering and physics, nanotechnology has been installed as a scientific discipline in its own right. It is sparking new solutions in many technological developments. Furthermore, researchers around the globe are working in promising nanotechnology collaboration projects to solve the challenges of our time in a sustainable way. Although our Special Issue can only cover a small part of this vast discipline, it is aiming at transmitting some of this spark to our readers as well.

In the first article of this Special Issue, Nina Preschitschek and Dominic Bresser compare the patent situation in China and Germany. In their article “Nanotechnology patenting in China and Germany – a comparison of patent landscapes by bibliographic analyses”, they identify historical trends in nanotechnology patenting. Additionally, the authors present an overview of the most active patenting institutions and the emerging fields in both countries. Finally, they derive some implications for German-Chinese collaboration projects in nanotechnology.

In a second research article, Lu Huang, Zhengchun Peng, Ying Guo and Alan L. Porter also use bibliographic studies to identify emerging research paths. Their contribution “Identifying the emerging roles of nanoparticles in biosensors” provides additional insights in the existing research networks, identifying single researchers as well as research schools. The authors use nanoparticles in biosensors as an illustrative example for their study.

Steffen Kanzler builds on this background of network research in his article “Knowledge sharing in heterogeneous collaborations – a longitudinal investigation of a cross-cultural research collaboration in nanoscience”. Especially crucial in collaboration projects, Steffen Kanzler examines knowledge sharing behavior with the example of the research collaboration SFB TRR 61. This first Chinese-German SFB is funded by the German Research Foundation and the National Natural Science Foundation of China. In his study, he sheds new light on cultural and personal influence factors of Chinese-German collaboration.

The last article of this Special Issue “Technological trajectories and multidimensional impacts: further remarks on the nanotechnology industry” by Paulo Antônio Zawislak, Luis Fernando Marques, Priscila Esteves and Fernanda Rublescki deals with effects of nanotechnology on different stakeholders. In their interview study, they present and evaluate opportunities and risks of this technology. They conclude that a regulatory framework is necessary to allow an exploitation of the full potential of nanotechnology.

Now, please enjoy reading the first issue of the seventh volume of the JoBC. We would like to thank all authors and reviewers who have contributed to this new issue. If you have any comments or suggestions, please do not hesitate to send us an email at contact@businesschemistry.org.

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