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Celebrating 25 years of the Key Laboratory for Special Functional Materials at Henan University

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An introduction to the *Nanoscale* themed collection organised in celebration of the 25th anniversary of the Key Laboratory for Special Functional Materials at Henan University in China, featuring research in all aspects of nanoscience and nanotechnology.

Founded in 1998, the Key Laboratory for Special Functional Materials is one of the excellent key laboratories of the Ministry of Education, China. After 25 years of development, the Key Laboratory has become a comprehensive research base for functional nano-materials, electronic/optoelectronic nano-devices, and energy devices, and has developed a variety of technologies including photoelectric nano-devices, luminescent quantum dot displays and new energy resources. Specially, some of the key performance indicators of blue-emitting quantum dot light-emitting diodes (QLEDs) and nano-devices are at the leading level in the world. The Key Laboratory for Special Functional Materials currently has more than 100 employees including one Zhongyuan Scholar, five Outstanding Young Scholars of China, 27 professors, and 23 associate professors.

This online collection of articles aims to showcase the breadth of high-quality work and the most recent research progress in a wide spectrum of nanoscience and nanotechnology by the current faculty members as well as alumni from this institute, and to foster collaborations between Henan University and institutions around the world.

Feng Bai

Feng Bai is a professor in the Key Lab for Special Functional Materials of Ministry of Education, Henan University. He received his BS degree in 2000 in chemistry and his PhD degree in 2005 in polymer chemistry and physics from Nankai University. He worked as a postdoctoral fellow in the Fan group at Sandia National Laboratories from 2005 to 2010. His current research focuses on the self-assembly and applications of nanomaterials such as inorganic nanocrystals, block polymers, and supermolecules.

Gang Cheng

Gang Cheng is a professor in the Key Lab for Special Functional Materials of Ministry of Education, Henan University. He received his BS degree from Henan University in 2000 and his PhD degree in condensed matter physics from Jilin University in 2008. He was a visiting scholar in School of Materials Science and Engineering at Georgia Institute of Technology under the supervision of Prof. Zhong Lin (Z. L.) Wang from 2013 to 2016. Up to date, he has led 4 national-level research projects from the National Natural Science Foundation of China, including the excellent youth project. His research interests are nanostructure-based electronic and optoelectronic devices, and self-powered sensing systems.

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The Key Laboratory for Special Functional Materials welcomes any type of cooperation from all domestic and international materials-related research institutions, and also welcomes scientists from around the world to join the laboratory.

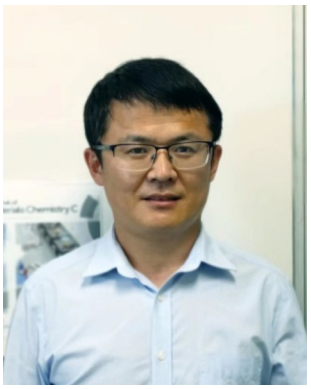
This themed collection showcases many high-quality papers from current professors and alumni, including reviews, full papers and communications, highlighting the most recent progress in all branches of nanoscience and nanotechnology, ranging from the synthesis, self-assembly, characterization, modelling and simulation of nanomaterials, and their applications in light-emission and displays, sensing, catalysis, drug delivery, and environment-based applications.

Read the collection here: **https://pubs.rsc.org/en/journals/articlecollectionlanding?sercode=nr&themeid=91b28e8a-6bcc-4113-b17d-86d6f874dfea**.

We would like to thank the authors and reviewers who contributed to this themed collection. We also appreciate the editorial team at the Royal Society of Chemistry for their help and support in bringing this themed collection to press.

Zuliang Du

Zuliang Du is a professor and the Director of the Key Lab for Special Functional Materials of Ministry of Education and National & Local Joint Engineering Research Center of High-Efficiency Display and Lighting Technology, Henan University. He received his MSc (1991) and PhD (1999) in condensed matter physics from Jilin University. Up to date, he has led more than 10 national-level research projects from the Ministry of Science and Technology and the National Natural Science Foundation of China. His research focuses on optoelectronic nano-materials and devices.



Guohua Jia

Guohua Jia is an Associate Professor in the School of Molecular and Life Sciences at Curtin University, Australia. He obtained his PhD from City University of Hong Kong in 2009, then he conducted his postdoctoral research under the supervision of Prof. Uri Banin at Hebrew University of Jerusalem in Israel from 2010 to 2014. In 2015, he started his current role as a group leader at Curtin University. His research interests focus on chemistry and physics of colloidal semiconductor nanocrystals, with a particular emphasis on their shape-dependent properties and application in catalysis and optoelectronic devices.