Special Issue on Optoelectronics at King Abdullah University of Science and Technology (KAUST)

Submission Deadline: 31 Dec. 2024

Illustration

This special issue is in collaboration with King Abdullah University of Science and Technology (KAUST) and journal Light: Science & Applications, aiming to showcase the forefront advancements in optoelectronics research conducted recently at KAUST.

Brief Introduction of King Abdullah University of Science and Technology (KAUST)

King Abdullah University of Science and Technology (KAUST), established in 2009, stands as a beacon of scientific excellence and innovation in the Middle East. Located in Thuwal, Saudi Arabia, KAUST is renowned for its cutting-edge research, state-of-the-art facilities, and diverse international community. KAUST boasts top rankings in the percentage of international students and faculty, along with being recognized as one of the fastest rising universities for high-quality research output. KAUST is equipped with world-leading facilities for semiconductor material growth, device nanofabrication, and characterizations, which are supported and maintained by experienced scientists and technicians. Within this vibrant academic environment, KAUST has been a trailblazer in optoelectronics research, fostering interdisciplinary collaborations and pushing the boundaries of knowledge in areas such as photovoltaics, nanophotonics, and integrated photonics.

Interested Topics

The interested topics will include but not be limited to:

- Nanophotonics
- Integrated photonics and Optoelectronic Devices
- Wide-bandgap Optoelectronics

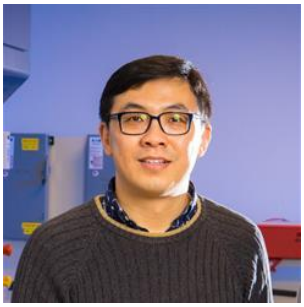
- Radiative Cooling
- Optical Wireless Communications
- Optoelectronic Sensing and Imaging
- Photovoltaics and Solar Energy Harvesting
- Quantum Optoelectronics
- Organic and Hybrid Optoelectronic Materials
- Two-dimensional Materials for Optoelectronics
- Terahertz Optoelectronics
- Quantum Dot and Perovskite Optoelectronics

About Submission

Original Research Articles, Reviews, and Perspectives are welcome. Authors should indicate in their cover letter that their manuscript is submitted to this special issue and identify the corresponding author affiliated with KAUST or a KAUST alumni.

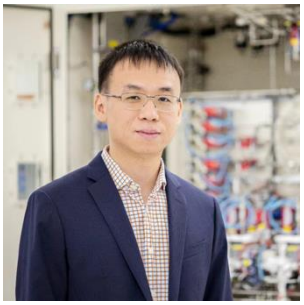
Guest Editors-in-Chief

Boon S. Ooi is a Professor of Electrical and Computer Engineering at KAUST. He was Director of KACST-Technology Innovation Center at KAUST from 2012-2020. His research interests include high-speed optoelectronics, optical wireless communications, and distributed fiber optic sensor. To date, he has trained 38 PhD students and 17 postdocs, and placed them in top places in academia, industry, and government all over the world. He is an inventor of 41 issued US Patents and the recipient of the following selected awards: the OSA/OSK Sang Soo Lee Award, the Khalifa International Award, the PIFI Distinguished Scientist Award, as well as many paper awards. He served as Associate Editor of the Optics Express, Senior Editor of the IEEE Photonics Journal, and Chair/Co-chair/TPC of OFC, CLEO, IPC, ISLC, and IEDM. He is currently serving or has served on the IEEE Fellow Committee, the SPIE Fellow Selection Committee, and the IEEE Women in Photonics Award Committee. He is Editor-in-Chief of the IEEE Photonics Technology Letters. He is a Fellow of the US National Academy of Inventors (NAI), FIEEE, FOSA, FSPIE and FInstP.



Qiaoqiang Gan is a Professor in Physical Science and Engineering Division, KAUST. He received his Bachelor's degree from Fudan University in 2003, his Master's degree from Chinese Academy of Sciences in 2006, and his PhD degree from Lehigh University in 2010. Before joining KAUST, he started his academic career at the Department of Electrical Engineering at the State University of New York at Buffalo (UB) in 2011, where he was promoted to Associate Professor in 2017 and Full Professor in 2020. At UB, he received 2019 SUNY Chancellor’s

Award for Excellence in Scholarship & Creative Activities. Dr. Gan is a Fellow of Optica (formerly Optical Society of America) and Fellow of SPIE. His research interests mainly include nanostructural construction and their applications in water sustainability, thermal management (passive cooling), biomedical sensing, and energy and environmental applications. In particular, his research activities aimed to bridge the gaps between fundamental investigation, application development and technology transfer (e.g. radiative cooling, solar-driven water purification and treatment technologies). He has published over 150 research articles in prestigious journals, including Nat. Sustain., Nat. Comm., Sci. Adv., PNAS, Adv. Mater. Phys. Rev. Lett. et al.. He is the Editor-in-Chief of IEEE J. Selected Topics of Quantum Electronics. He also served as General Chair and Program Chair for CLEO 2021-2023.



Xiaohang Li is an Associate Professor of Electrical and Computer Engineering and Applied Physics at KAUST. He obtained Ph.D. in Electrical Engineering from Georgia Institute of Technology where he received the Institute's highest graduate student honor, the Edison Prize. His research focuses on cutting-edge research on ultrawide bandgap semiconductors for next-generation electronics and photonics. He has authored over 150 journal and 200 conference publications. He is the recipient of several prestigious awards including the Harold M. Manasevit Young Investigator Award from the American Association for Crystal Growth, the SPIE D. J. Lovell Scholarship, the IEEE Photonics Graduate Student Fellowship, the Georgia Tech 40 under 40 Award. He is an Associate Editor of Photonics Research and as a committee member of several leading conferences including IWN, EMC, and IC-MOVPE.

Yating Wan is an Assistant Professor of Electrical and Computer Engineering at KAUST. Before that, she received Ph.D. (2012-2017) in Hong Kong University of Science and Technology under the supervision of Prof. Kei May Lau with the highest honor (School of Engineering PhD Research Excellence Award), worked as a postdoc in Prof. John Bower's group at UCSB (2017-2022), and led Intel's project of Heterogeneously Integrated Quantum Dot Lasers on Silicon. Her research interests are in Si Photonics with special emphasis on integration of on-chip light sources. She has published more than 60 peer-reviewed research papers, including 36 first-author journal (24) /conference (12) papers and 10 journal covers. She received 2016-17 School of Engineering PhD Research Excellence Award in HKUST, 2021 CLEO Tingye Li Innovation Prize, 2022 Rising Stars of Light, 2024 Optica Ambassador, 2018 PIERS Young Scientist Award, 2018 Rising Stars Women in Engineering Asia, 2020 Rising Stars Women in EECS, and 2021 OGC Best Young Scientist Award.