
Light-directing liquid crystals: from dynamic photonics to deformable systems and beyond

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Liquid crystal (LC) represents a fascinating state of matter that combines order and mobility on a molecular and supramolecular level. The unique combination of order and mobility results in that LC is typically “soft” and responds easily to external stimuli. The responsive nature and diversity of LCs provide tremendous opportunities as well as challenges for insights in fundamental science, and open the door to various applications. Conventional nematic LCs have become the quintessential materials of LC displays. With the LC displays ubiquitous in our daily life, the research and development of LCs are moving rapidly beyond display applications and evolving into entirely new and important scientific frontiers. In my talk, I will present our recent research and development on light-directing liquid crystals: from dynamic photonics to deformable systems and beyond.



Quan Li is Distinguished Chair Professor and Director of Institute of Advanced Materials at Southeast University, China. He is the Honorary Editor-in-Chief of "*Chinese Journal of Liquid Crystals and Displays*", the founding Editor-in-Chief of Wiley "*Responsive Materials*", an Editor of Spring Nature "*Light: Science & Applications*" etc. Li held appointments in USA, Germany, and France. He received his Ph.D. from the Chinese Academy of Sciences

in Shanghai, where he was promoted to a youngest Full Professor in February 1998. Over the past decade, he has edited eight books (2 Wiley-VCH, 2 Wiley and 4 Springer books), and has co-authored 40 chapters including the invited author of the entry entitled “Liquid Crystals” in the prestigious Kirk-Othmer Encyclopedia. He was Alexander von Humboldt Fellow in Germany. He has won Kent State University Outstanding Research and Scholarship award. He is a Fellow of the Royal Society of Chemistry. Li has also been elected as a member of European Academy of Sciences and a member of European Academy of Sciences and Arts. In

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