Franky So

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So's interests include processing, and electronic and optical properties of electronic materials based on small molecule compounds and polymers, quantum dots and perovskite materials used for optoelectronic device and sensor applications.

Franky So started his career as a research scientist working for Hoechst Celanese Research Division on polymer optical modulators. In 1993, he joined Motorola and then became the head of the OLED research group. In 2001, and he joined OSRAM Opto Semiconductors and became the Head of OLED Research. He joined the University of Florida in 2005 and became the Rolf E. Hummel Professor in Electronic Materials in the Department of Materials Science and Engineering at the University of Florida. In 2015, he joined the Department of Materials Science and Engineering at the North Carolina State University where he is currently the Walter and Ida Freeman Distinguished Professor. While at Motorola, he was named the Distinguished Innovator and Master Innovator. He was the recipient of the DOE Solid State Lighting Program Significant Achievement Awards. Dr. So holds 80 issued patents and has published more than 150 peer-reviewed articles with a Google H-index of 59. He is the Editor-in-Chief of the journal Materials Science and Engineering Reports and serves as an Associate Editor for IEEE Journal of Photovoltaics, IEEE Journal of Display Technology, SPIE Journal of Photonic Technology and Organic Electronics. So is a Distinguished Lecturer of the IEEE Photonics Society, a Charter Fellow of the National Academy of Inventors, a Fellow of IEEE, OSA and SPIE.

So's current research focus is on electronics properties and photophysics of organic semiconductors and quantum dots used for OLEDs, solar cells, photodetectors, sensors and transistors. His recent works include: use of corrugated structures to fabricate OLEDs and perovskite solar cells, charge transport, injection and charge transfer excitons in organic semiconductors, dielectric properties of polymer-fullerene blends for photovoltaics, vertical permeable metal base transistors, vertical field effect transistors, PbS quantum dots photodetectors and phototransistors, and ferroelectric transistors.

Publications

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