

Large-Area Micro and Nanoelectronics Manufactured at a Flash

Thomas D. Anthopoulos

**King Abdullah University of Science and Technology (KAUST), KAUST Solar Centre, Thuwal 23955-6900,
Kingdom of Saudi Arabia**

Tel.: +966-12-808-7283, E-mail: thomas.anthopoulos@kaust.edu.sa

In traditional electronics the ability to downscale critical dimensions of its building block, the transistor, has proven extremely successful in advancing the computational power of modern-day microelectronics. However, adopting established techniques for the manufacturing of emerging technologies, such as large-area printed electronics, has proven challenging both in terms of technology and economics. Despite the difficulties, however, these new forms of electronics have been gaining ground, transforming both the research & development landscape as well as the broader marketplace of electronics and the manufacturing infrastructure behind them. In this talk I will focus on progress being made downscaling emerging forms of large-area electronics through new materials and fabrication paradigms and their application in the ever expanding device ecosystem of the future.