

Russell Berrie Nanotechnology Institute Technion - Israel Institute of Technology



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"Waiting for Act 2:
The future of organic electronics beyond
OLED displays"

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12:00 refreshments

12:30 lecture

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Waiting for Act 2: The future of organic electronics beyond OLED displays

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Abstract

Organic light emitting devices (OLEDs) have catalyzed a revolution in the information display industry. Today, more than 35% of all mobile displays employ OLEDs, and TVs are emerging as a powerful new market. Indeed, OLED displays today constitute a rapidly growing, \$20 billion (US) industry. But what is next? Despite decades of promise that organic electronics will create an entirely new technological platform that will transform our lives, little of this dream has been realized beyond displays. In this talk, I will provide an overview of the current state of OLEDs, and the remaining deep technological and scientific challenges that remain in the face of this explosively growing industry. Then, I will take a look forward, and try to answer the question of what's next? Possibilities include OLED lighting, organic solar cells, and multifunctional organic transistor-based circuits. To address these topics, I will delineate what makes organic electronics special, and how its attributes create exciting new opportunities to finally realize its promise after 70+ years of basic and applied research.