Topics and Abstracts:

Speaker	**Dr Yu Xia**
Company	**Flexterra Inc.**
Designation	**VP of Technology and Customer Support**
Title of Presentation	**Materials Development for Flexible and Printed Electronics**
Abstract	We report the materials development enabling the scale production of high performance organic thin film transistors (OTFTs) through conventional display backplane-manufacture line. FAB-processed OTFT exhibiting an electron mobility approaching 1 cm2/Vs along with good large-area uniformity (~ 7%) and bias stress stability (< □2 V). Using Flexterra OTFT technology the first flexible and mechanically robust 6.8” EPD display prototype has been demonstrated in collaboration with E-Ink, featuring superb impact resistance (ball test > 35 cm height), thus compatible with truly-flexible portable and wearable applications. Our materials portfolio also includes IGZO-compatible organic dielectrics for metal oxide TFTs, as well as functional semiconductor and dielectric inks for various high throughput printing processes. Thus, Flexterra backplane/circuit technologies can enable a vast array of unconventional products spanning B&W/color EPDs, flexible LCDs and OLEDs, and printed circuits for sensors and RFIDs.

Biography

Xia serves as VP of technology and customer support for Flexterra Corp. He leads a technical team to strengthen the value proposition of the company and provide customers technical solutions for various flexible electronics applications. He has played a leading role in several technology breakthroughs of the company, including active matrix backplane using organic and metal oxide thin film transistors, printable circuits and novel display technologies. Prior to Flexterra, Xia had served several R&D and management positions at Polyera, promoting flexible displays and wearable electronics technologies. Xia has obtained his Ph.D. in Materials Science and Engineering from University of Minnesota under Professor C. Dainel Frisbie. He has published more than 20 research articles and is a co-inventor on 12 U.S. patents.