**Development of aromatic polymers for next-generation energy devices**

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**Abstract**

In thin-film electronic devices, the surface and binding characteristics of each layer are very important in determining the performance of the device. The surface roughness, surface energy difference and energy-level mismatch at the interfaces make poor charge transporting properties in the electronic devices. In addition, volume expansion of multicomponent blend films causes phase-separation and cracking in the devices, causing serious problems in the life-time of the electronic devices. In this seminar, I would like to introduce several successful cases in which the development and use of aromatic small molecules and polymers has dramatically improved the interfacial and binding characteristics of solar cells and lithium-ion batteries.