Formation mechanism of spontaneous orientation polarization in evaporated films of organic light-emitting diode materials

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Keywords: orientation polarization, surface potential, permanent dipole moment, intermolecular interaction

Spontaneous orientation polarization (SOP) affects the device performance of OLEDs. To understand and control SOP, we have studied the formation mechanism. The SOP formation likely results from a balance between an electrostatic interaction of permanent dipole moment and van der Waals interaction on the film surface during deposition.