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Exhibitor Introduction	<p>Organic Optoelectronics Device Lab. (OODL) is conducting various research related to OLED such as bottom, top and transparent OLEDs, QLEDs, smart window, material synthesis, etc.</p> <ol style="list-style-type: none">1. The research on bottom, top and transparent OLED devices using fluorescence, phosphorescence and TADF materials is in progress. Our main goals are device efficiency and lifetime.2. Main research is focusing on the enhancement of the efficiency and lifetime of Cadmium-free QLEDs.3. The smart window is a device that displays the transmission/disruption status according to the application of the voltage. By using this principle, it is used as a backplane that selectively expresses information in transparent OLEDs.4. TADF and ETL materials are designed, synthesized and evaluated through OLED devices.	

Exhibit Description	OODL will introduce various OLED devices and the technology of the laboratory.
Exhibit Product	<p>Bottom & Top emission OLED device (Fluorescence, Phosphorescence, TADF), QLED device, Smart window</p> <p>Facilities</p> <ul style="list-style-type: none">- Device fabrication<ol style="list-style-type: none">1) Thermal evaporation vacuum chamber 1&2 (Linear type)2) Thermal evaporation vacuum chamber 3 (Cluster type)3) Atomic Layer Deposition4) Sputter5) QD glove box- Device measurement<ol style="list-style-type: none">1) Luminance & color meter2) Spectroradiometer3) Integrating sphere with spectrometer4) Solar cell I-V measurement5) Constant temperature & humidity chamber6) OLED device lifetime measurement system- Measurement<ol style="list-style-type: none">1) Ellipsometer2) Capacitance-Voltage3) Alpha-step4) Cyclic-Voltammetry5) UV-visible spectrometer6) Photoluminescence spectroscopy7) Transient photoluminescence spectroscopy & Cryo set- Material synthesis equipment<ol style="list-style-type: none">1) Rotary concentrator2) High vacuum pump3) Aspirator- Simulator<ol style="list-style-type: none">1) SETFOS (optical simulation)2) Schrödinger & Gaussian 16 (Molecule simulation)