

## Triplet management for efficient perovskite light-emitting diodes



Photoelectron yield spectrum of N2F8 and P2F8 films measurement by AC-3<sup>[1]</sup>.

Valance band level measurement of perovskite materials by AC-3

Prof. Adachi and co-workers from Kyushu University, reported their study on Nature Photonics about triplet excitons design for high performance light-emitting diodes device<sup>[1]</sup>.

Light-emitting diodes, short for LEDs, are very popular electronic device due to the long durability and small size. Prof. Adachi and co-workers combined a perovskite-type precursor with different organic cations. By comparing their optical performance, they found a deep understanding which was clearly a critical point for creating high-performance perovskite optoelectronic devices. And with AC-3, the valence band levels can be easily measured, so that the conduction band levels of the samples could be obtained by adding the bandgaps to the values of the valence bands.

Therefore, AC-3 can be your best partner and contribute to those advanced materials development.

<sup>[1]</sup> Chuanjiang Qin, Chihaya Adachi and et al., Nat. Photonics 14, 70-75 (2020).

Photoemission Yield Spectroscopy in Air : PYSA



## **Features**



- No need for vacuum, can measure in air
  → Various types of samples available without any pre-treatment.
- Further range for more applications
  → Measure ranges from 4.0 to 7.0 eV, capable for more materials.

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