High-Mobility Pyrene-Based Semiconductor for Organic Thin-Film Transistors

Product Specifications

LT-S9077 BOBTP

CAS No. 1430207-54-7

Grade Sublimed, > 99% (NMR)

Formula $C_{48}H_{50}S_4$

Molecular Weight 755.17 g/mole

Absorption 320,410 nm (in CHCl₃)

C₈H₁₇

Reference: ACS Applied Materials & Interfaces (2013), 5(9), 3855-3860

Features

- The OTFT using BOBTP showed a field-effect mobility as high as $2.1 \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$ and an on-off current ratio 7.6×10^6 under the optimized condition.
- BOBTP TFT showed better air stability than that of pentacene TFT for 3 months.

Device Application

The Best Device:

Doped Si/SiO₂(300 nm)/BOBTP/Au

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