



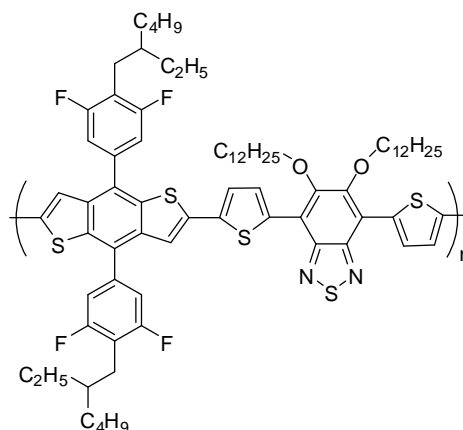
## Mapping Polymer Donors toward High-Efficiency Fullerene Free Organic Solar Cells

### Product Specifications

#### LT-S9278 PTFBDT-BZS

**Name.** Poly[[5,6-bis(dodecyloxy)-2,1,3-benzothiadiazole-4,7-diyl]-2,5-thiophenediyl[4,8-bis[4-(2-ethylhexyl)-3,5-difluorophenyl]benzo[1,2-*b*:4,5-*b'*]dithiophene-2,6-diyl]-2,5-thiophenediyl]

**CAS No.** 1840869-86-4  
**Grade**  $M_w > 20,000$  (GPC)  
**Formula**  $(C_{76}H_{94}F_4N_2O_2S_5)_n$



\* Reference: *Adv. Mater.* 2017, 29, 1604155

### Features

- The polymer of PTFBDT-BZS shows good morphological compatibility with IDIC acceptor. The as-cast devices based on PTFBDT-BZS:IDIC show PCEs of 8.06%; solvent additive DIO further enhances the PCEs to 11.03%. TA from both excitation wavelengths of PTFBDT-BZS and IDIC confirms extremely efficient charge generation from donor and acceptor channels.

### Device Application

#### The Best Device:

ITO/ ZnO/ PTFBDT-BZS:IDIC/ MoO<sub>x</sub> (5 nm)/ Ag (80 nm)

MoO<sub>3</sub> = LT-E003

Materials are used by qualified for testing and research only, there are not guaranteed in patent contention by customer use.

Head office: 31F-5, No. 99, Sec. 1, Xintai 5<sup>th</sup> Rd., Xizhi, New Taipei City 22175, Taiwan, R.O.C., TEL: +886-2-2697-5600, FAX: +886-2-2697-5601.

Factory I: 2F, No. 21, R&D Road II, Science-Based Industrial Park, Hsin-Chu 30076, Taiwan, R.O.C., TEL: +886-3-666-3188, FAX: +886-3-666-9288.

總公司: 22175 新北市汐止區新台五路一段 99 號 31 樓之 5, 電話: 02-2697-5600, 傳真: 02-2697-5601.

新竹廠: 30076 新竹科學工業園區研發二路 17 號 2 樓, 電話: 03-666-3188, 傳真: 03-666-9288.

E-mail: [sales@lumtec.com.tw](mailto:sales@lumtec.com.tw); Web: <http://www.lumtec.com.tw>