



Molecular Design with Silicon Core: Toward Commercially Available Hole Transport Materials for High-Performance Planar P-I-N Perovskite Solar Cells

Product Specifications

LT-S9290 Si-OMeTPA

Name. 4,4',4'',4'''-silanetetrayltetrakis(N,N-bis(4-methoxyphenyl)aniline)

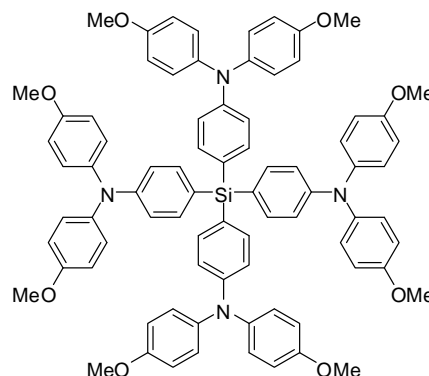
Grade >99 % (HPLC)

Formula C₈₀H₇₂N₄O₈Si

Molecular Weight 1245.54 g/mole

TGA 426 °C (5% weight loss)

HOMO/LUMO -5.39 eV/ -1.96 eV



* Reference: *J. Mater. Chem. A*, 2018, 6, 404-413

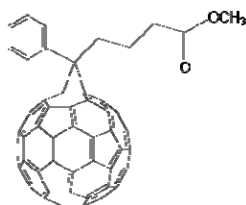
Features

- The resulting HTL can also facilitate the sequential growth of high-quality perovskite films, giving a significantly enhanced photovoltaic performance with a best power conversion efficiency of 19.06%, which is one of the highest PCE among the planer P-I-N pero-SCs to date.
- This designed Si-OMeTPA possesses advantages of high thermal stability, high crystallinity with a long range ordered lamellar structure.

Device Application

The Best Device:

Glass/ ITO/ Si-OMeTPA/ MAPbI₃/ PCBM/ Al.



LT-S905 PCBM

LT-E005 Al

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

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