

POLYRIUM™ Fluoro-PTAA

Polymer for opto-electronic applications

Description

Poly[bis(4-phenyl)(4-fluoro-2-methylphenyl)amine] is one of the family members of poly(triaryl)amine, closely related to PTAA but with a deeper HOMO energy level of -5.52 eV (vs -5.14 eV for PTAA).

F-PTAA as HTL in perovskite solar cells achieving high power conversion efficiencies (PCE). F-PTAA displays a deeper HOMO level than PTAA, allowing to fine tune work functions of photovoltaic systems.

The Polyrium Difference by Solaris

POLYRIUM™ Fluoro-PTAA Advantages:

- Various Mw ranges available (5 kDa to 200 kDa) to fit your formulations, device fabrication processes and methods (Custom Mw available).
- High Molecular weight (Mw).
- Excellent semiconductor material that transports holes and blocks electrons due to its electron-rich components..
- The use of this polymer can significantly improve the open-circuit voltage (VOC) and the fill factor (FF) of the cells in high-performance perovskite solar cells.
- Fluoro-PTAA can be coated as a substrate material used for hole transport in the manufacture of many devices such as perovskite solar cells, organic light-emitting diodes (OLED) and **organic field-effect transistors**.
- Specific Polyrium batches with precise Mw and pdi available (Mw Polyrium batches).

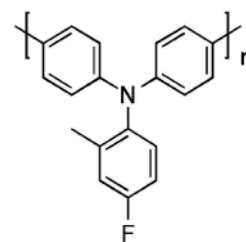
POLYRIUM™ by Solaris Chem Inc.

References

“Sequentially Fluorinated PTAA Polymers for Enhancing VOC of High-Performance Perovskite Solar Cells”.

Youngwoong Kim, Eui Hyuk Jung, Geunjin Kim, Donguk Kim, Bumjoon J. Kim, and Jangwon Seo*

DOI: [10.1002/aenm.201801668](https://doi.org/10.1002/aenm.201801668)



Fluoro-PTAA
SOL2446

Various Mw ranges and specific Mw Polyrium batches available to fit your formulations, device fabrication processes and methods (Mw available from 5 kDa to 200 kDa).

Buy now

Polyrium batches

Available at **g level** (Tech centers and universities) and Available at **kg level** (for industrial developments).

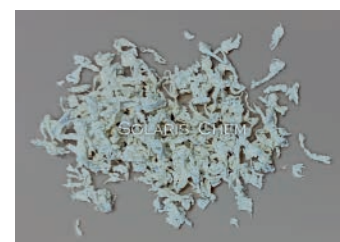


Green chemistry



Environmentally friendly

SUSTAINABILITY is at the core of what we do and our engine for growth, which is why we prioritize the use of GREEN CHEMISTRY, avoid wastes, recover and recycle solvents and materials as much as possible and use renewable hydro-electrical energy to power our operations.



High Mw Fluoro-PTAA fibers