

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



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).



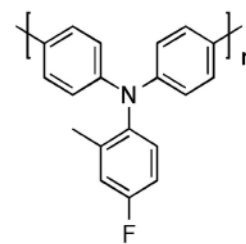
POLYRIUM™ by Solaris Chem Inc.

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

SOLARIS CHEM America
Headquarters & Labs
3650 Bld. Cité-des-Jeunes, Suite 101,
Vaudreuil-Dorion, Quebec, Canada
J7V 8P2
Phone: (514) 730-8653
Fax: (514) 635-6326
General info: info@solarischem.com
Sales: sales@solarischem.com
www.solarischem.com

SOLARIS CHEM Europe
Monestir de Poblet Street 15,
D. 30,
12540 Vila-real, Castellón,
Spain
P. (+34) 643637196
europe@solarischem.com

SOLARIS CHEM Middle East
15, 4th Floor, Bldg. No. 5,
Wafa Complex, Street 103, Area 6,
Farwaniya, Kuwait
P. +965 66459915
middleeast@solarischem.com

SOLARIS CHEM Southeast Asia
Singapore, Malaysia, Thailand,
Indonesia, Vietnam, Philippines,
Myanmar
No. 27 Woodlands Industrial Park E1,
#03-02, Singapore, 757718
P. +65 9363 8706
southeast@solarischem.com

SOLARIS CHEM Asia
China, Taiwan, Hong Kong
2F., No. 67, Aly. 30, Ln. 136,
Kangle St., Neihu Dist.,
Taipei City 114, Taiwan (R.O.C.)
P. +886 989009807
asia@solarischem.com