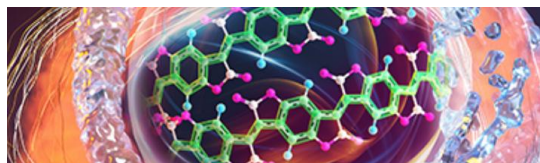


Solution processible n-Type super conducting polymer, n-PBFDO (n-PBDF)

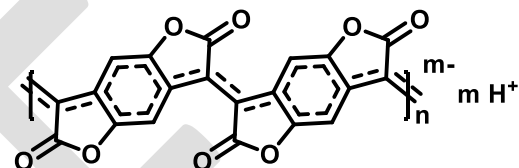


1-Material Inc

2290 Chemin St-Francois
Dorval, Quebec
H49P 1K2, Canada

Organic Nano Electronic (ONE=1) Materials for these who understand quality

Technical Data Sheet



1M Material:

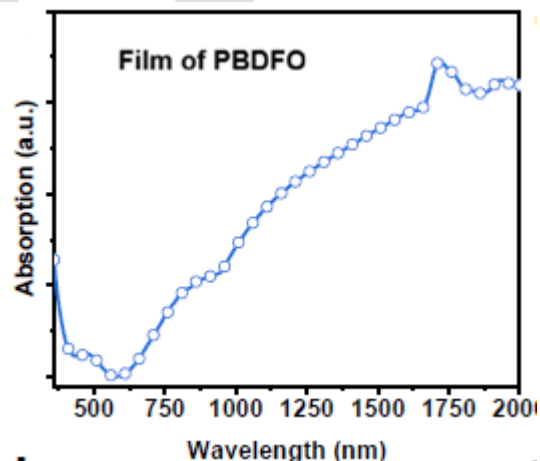
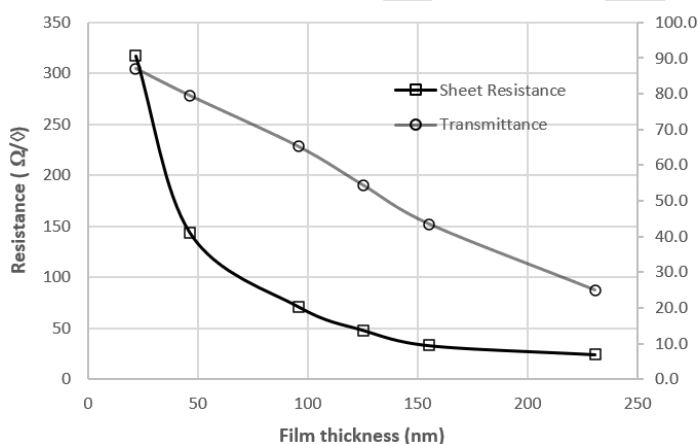
n-PBFDO polymeric ink

Common Name:

Poly(benzodifurandione) (PBFDO), n-PBFDO, n-PBDF

Potential Applications:

Printable n-Type superconductive solution for flexible electrodes, capacitors, electrochromic, batteries, energy storage, bioelectronics, OECT, OPV, OPD, EMS, and thermoelectric devices.



Appearance:

Black/brown liquid

Viscosity(mPa.s@25°C):

200~800 (Rotary Viscometer)

Solid content(mg/ml):

10 ± 2

Conductivity(S/cm):

~1500 (DMAc), ~800 (Alcohol)

Solvent:

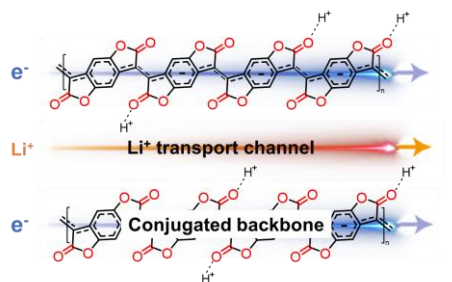
N,N-Dimethylacetamide(DMAc) or Alcohol

Safety:

Please consult Material Safe Data Sheet (MSDS) before using

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Solution processible n-Type super conducting polymer, n-PBFDO (n-PBDF)

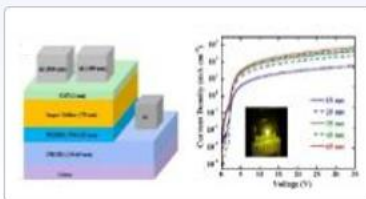


- ✓ High conductivity
- ✓ Insoluble in electrolytes
- ✓ Ordered structure
- ✓ No oxygen evolution



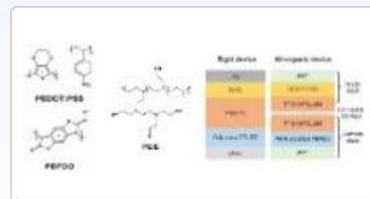
Z. Li, H. Tang, Y. Xu, F. Huang, *et al.*
Nature, 2026, 10.1038/s41586-026-10174-7.

Organic light-emitting diode



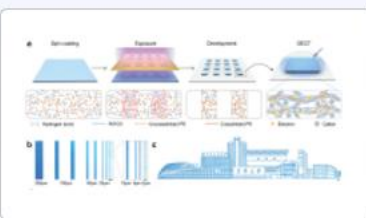
L. Ying, *et al.* *npj Flexible Electronics* 2024, 8, 38.

Organic solar cell



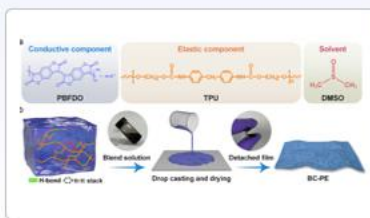
S. Fabiano, *et al.* *Adv. Sci.* 2024, 11, 2405676.

lithographic circuit



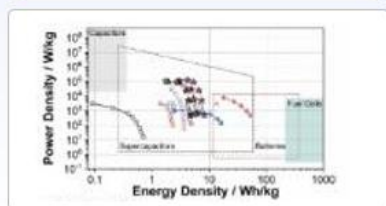
G. Wang, *et al.* *Adv. Mater.* 2025, 37, 2417452.

Flexible electronic skin



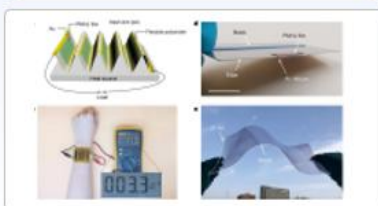
W. Yu, *et al.* *Adv. Mater.* 2025, 37, 2506511

Supercapacitor



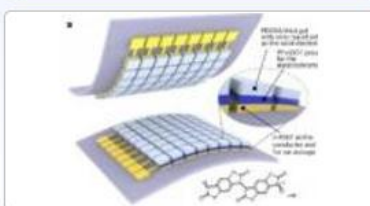
G. Bazan, *et al.* *Adv. Mater.* 2024, 36, 2410512.

Organic thermoelectric



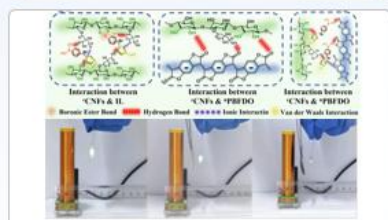
C. Di, *et al.* *Nature* 2024, 632, 528.

Electrochromism



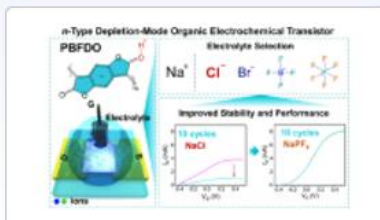
J. Mei, *et al.* *Nat. Electron.* 2024, 7, 1158.

Electromagnetic shielding



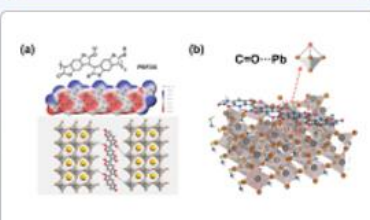
W. Li, *et al.* *Nat Commun* 2025, 16, 8608.

Electrochemical transistor



W. Leong *et al.* *Chem. Mater.* 2024, 36, 8639.

Perovskite photodetector



G. Dong *et al.* *Small* 2025, 21, 2406568

For more information, please visit our website www.1-material.com and search PBFDO, or email us at info@1-material.com

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