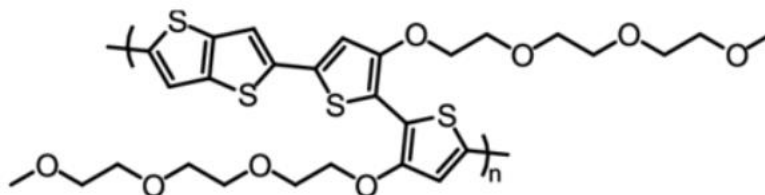


Technical Data Sheet

1M Material:	OS0289, Electron-ion conducting polymer for OECT
Common Name:	P(g2T-TT), g2T-TT, g ₂ T-TT
Chemical Family:	Poly[thieno[3,2- <i>b</i>]thiophene-2,5-diyl[3,3'-bis[2-[2-(2-methoxyethoxy)ethoxy]ethoxy][2,2'-bithiophene]-5,5'-diyl]]
CAS#:	2058240-28-9
Molecular Formula:	(C ₂₈ H ₃₄ O ₈ S ₄) _n
Chemical Structure:	



Appearance:	Brown solid
Solubility:	Soluble in CHCl ₃ , DMF, DMSO and other selected solvents
Molecular weight:	Mw ~20K. PDI~2
Structure confirmation:	NMR of monomers
Assay:	99+% (basing on NMR of monomers)

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Reference data:

1: <https://doi.org/10.1038/s41563-023-01476-6>

An ordered, self-assembled nanocomposite with efficient electronic and ionic transport

2: <https://doi.org/10.1016/j.nanoen.2022.107985>

Side chain engineering enhances the high-temperature resilience and ambient stability of organic synaptic transistors for neuromorphic applications

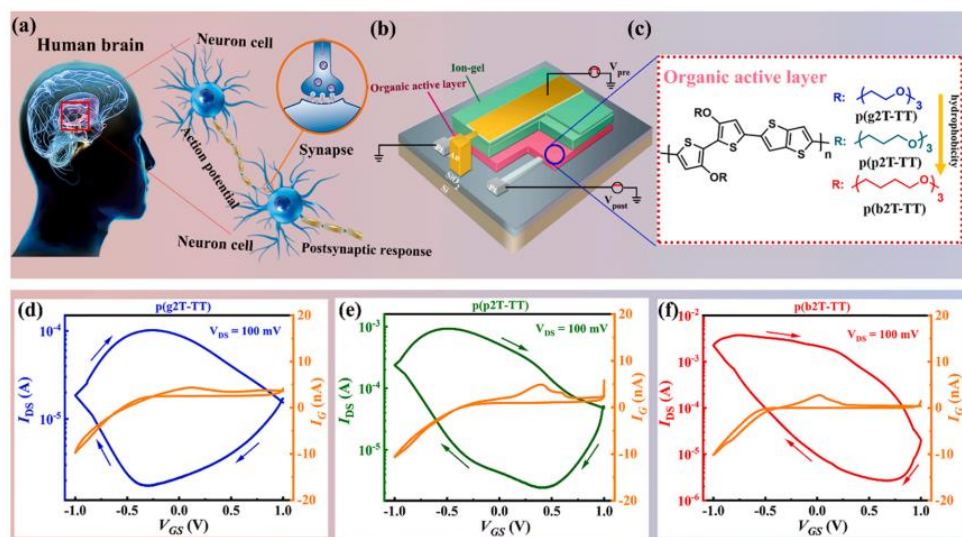
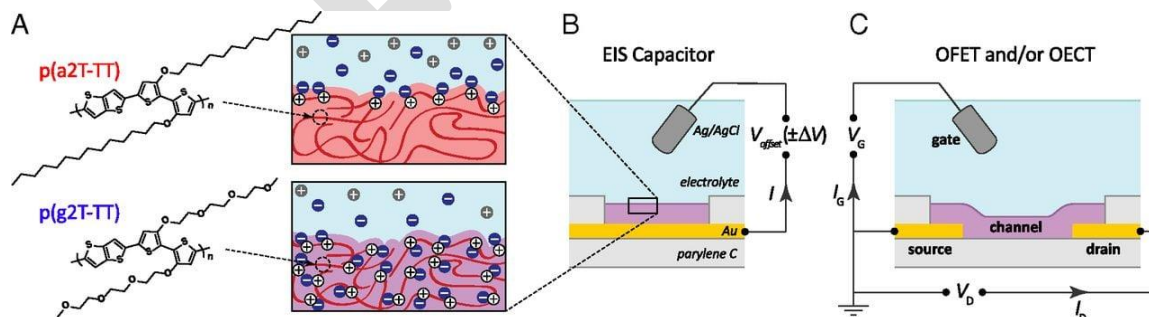


Fig. 1. Human brain-inspired TONMD. a) Schematic diagrams of the human brain and biological synapse. b) Device structure of TONMD. c) Chemical structures of the organic active layer, namely p(g2T-TT), p(p2T-TT), and p(b2T-TT). Transfer characteristic of TONMD with d) p(g2T-TT), e) p(p2T-TT), and f) p(b2T-TT) as the channel material. The arrows indicate the sweeping direction. Gate current (I_G) is also provided to show the occurrence of switching behavior.

3. <https://doi.org/10.1073/pnas.1608780113>

Controlling the mode of operation of organic transistors through side-chain engineering



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