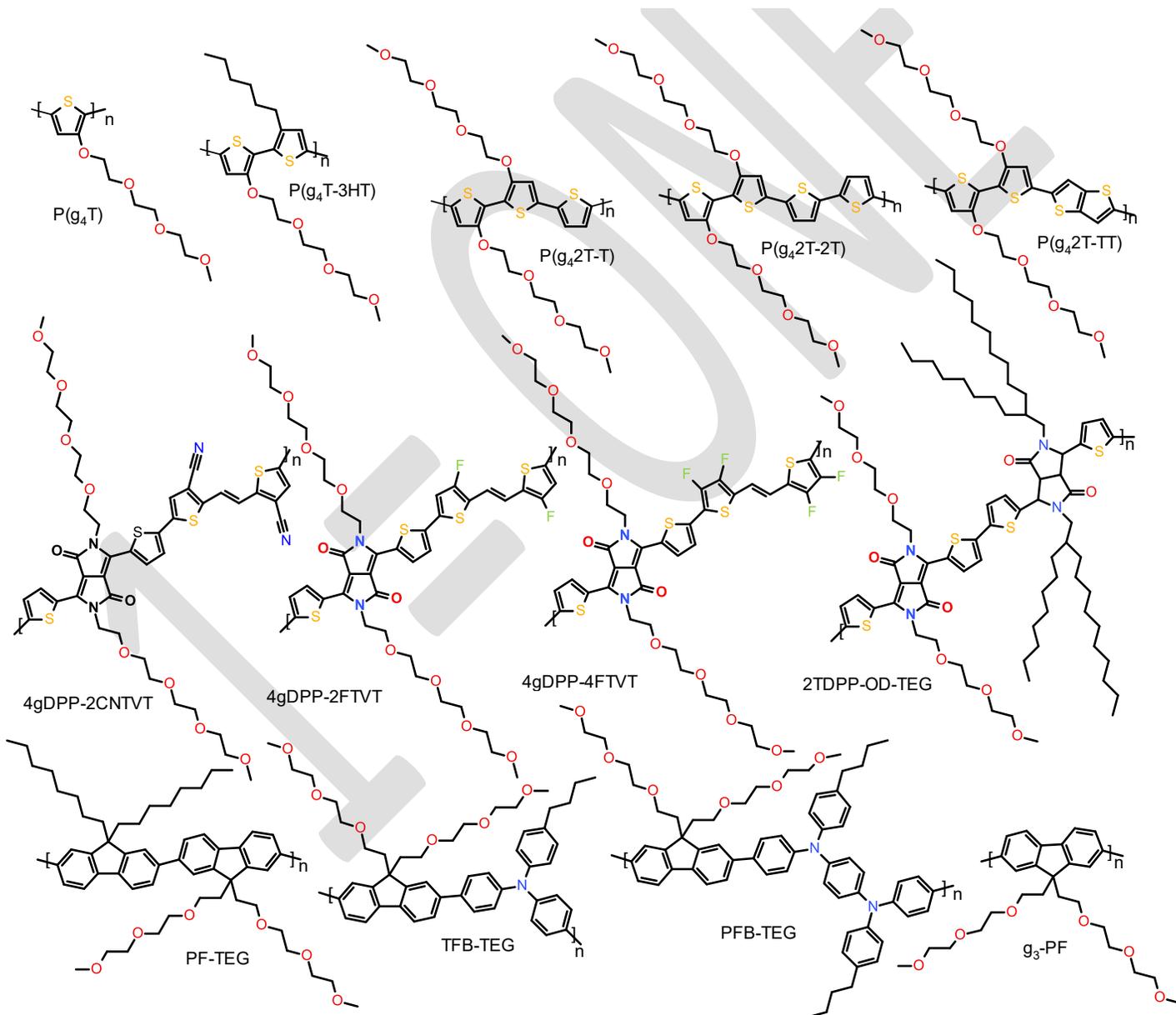


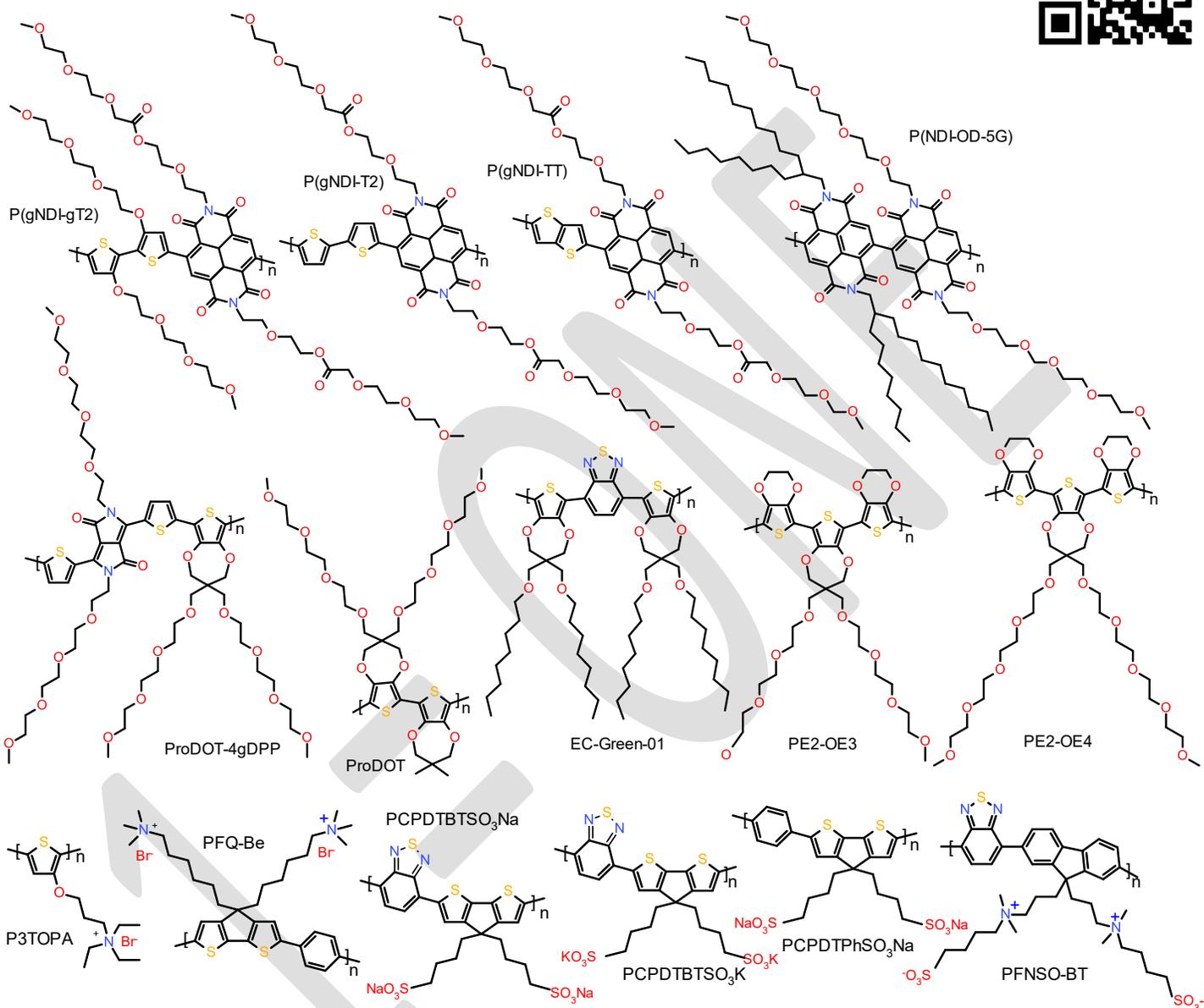
## Organic Nano Electronic (ONE=1) materials for those who understand quality

Conjugated polymers based mixed ionic-electronic conductors (OMIEC), exhibiting both ion and electron/hole conductivity, with ionic-electronic coupling (i.e., capacitance) allowing them to effectively transduce ionic signals to electronic ones, and vice versa, are found applications in energy storage, electrochromic displays, bioelectronics, sensors, electrocatalysis, neuromorphic devices, thermoelectric, and actuators. Structured below are examples of polymeric mixed conductors from 1-Material Inc.



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## Examples of 1M Mixed ionic-electronic conductors (OMIEC)



Despite many organic mixed ion-electronic conductors (OMIEC) have been explored, challenges remain in characterizing and modeling the dynamic relationship among electronic transport, ionic transport, and material structure during device operation. As exemplified above, we have demonstrated flanking conjugated backbones with long glycol side chains may enhance their interaction with hydrated ions and water and therefore facilitate electrochemical switching in aqueous solutions. We can also custom make other ion-electron transporting polymers for your specific needs. Furthermore, all building blocks exemplified in the above are available for you to construct structures you may design. For more information, please contact [info@1-material.com](mailto:info@1-material.com)

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