

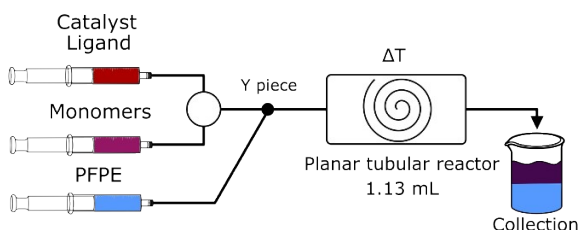
## Electronic supplementary information

### Materials and methods

All reagents and chemicals were obtained from commercial sources and used without further purification. 5,8-Dibromo-2,3-bis(3-(octyloxy)phenyl)quinoxaline was synthesized according to a previously published procedure.<sup>1</sup> Polymer molar mass distributions were estimated by size exclusion chromatography at 160 °C on an Agilent 1260 Infinity II high temperature GPC system using a PL-GEL 10 µm MIXED-B column with 1,2,4-trichlorobenzene as the eluent and using polystyrene internal standards. Matrix-assisted laser desorption/ionization - time-of-flight (MALDI-ToF) mass spectra were recorded on a Bruker Daltonics UltrafleXtreme ToF/ToF. Approximately 10 µL of the matrix solution (25 mg mL<sup>-1</sup> *trans*-2-[3-(4-*tert*-butylphenyl)-2-methyl-2-propenylidene]malononitrile (DTCB) in chloroform) was mixed with 3 µL of the analyte solution (10 mg mL<sup>-1</sup> in chloroform), after which 0.5 µL of the resulting solution was spotted onto an MTP Anchorchip 600/384 MALDI plate.

### TQ1 plug flow polymerisation

Plug flow experiments were conducted using a home-made continuous flow setup, consisting of two Chemyx Fusion 100 syringe pumps, a home-made Teflon Y piece, and a planar PFA tubular reactor of 1.13 mL (0.75 mm in diameter), which is held in place by a stainless steel oil bath (Figure S1). Before and after every injection, the system was flushed with freshly degassed chlorobenzene and degassed Fomblin L 06/6 perfluoropolyether (PFPE) upfront. Furthermore, a temperature equilibration (120 °C) of 30 min was performed before the experiment. When not in use, the system was stored under chlorobenzene.



**Figure S1:** Plug flow reactor used in this work.

5,8-Dibromo-2,3-bis(3-(octyloxy)phenyl)quinoxaline (1 equiv) and 2,5-bis(trimethylstannyl)thiophene (1 equiv) were dissolved in degassed toluene (180 mg mL<sup>-1</sup>) and loaded into a first syringe. A second syringe was filled with Pd<sub>2</sub>(dba)<sub>3</sub> (0.03 equiv)/P(*o*-tol)<sub>3</sub> (0.12 equiv) dissolved in the same amount of degassed solvent as the first syringe. Degassed Fomblin L 06/6 PFPE was loaded into a third syringe. Gas-tight SGE syringes of 5 mL were used for the monomers and the catalyst-ligand solution. A gas-tight 25 mL SGE syringe was used for the Fomblin L 06/6 PFPE.

One syringe pump was used to inject the reaction mixture (catalyst, ligand, and monomers) into the pre-heated (120 °C) reactor at the desired flow speed. After injection of the reaction mixture, the syringe pump responsible for the PFPE stream was activated to maintain the desired flow rate.

After collection in a round-bottom flask, the polymers were washed 3 times with (degassed) low-boiling Galden HT55 PFPE to get rid of the high-boiling Fomblin L 06/6 PFPE. The PFPE fluids were recycled afterwards.<sup>2</sup> The Galden HT55 PFPE was removed from the polymer solution *in vacuo*. Finally, the polymers were precipitated in methanol, collected by vacuum filtration, and dried under high vacuum.

## References

- 1 E. Wang, L. Hou, Z. Wang, S. Hellström, F. Zhang, O. Inganäs and M. R. Andersson, *Adv. Mater.*, 2010, **22**, 5240–5244.
- 2 O. Beckers, S. Gielen, F. Verstraeten, P. Verstappen, L. Lutsen, K. Vandewal and W. Maes, *ACS Appl. Polym. Mater.*, 2020, **2**, 4373–4378.