Electronic Supplementary Material (ESI) for Reaction Chemistry & Engineering.

Supporting information

Efficient synthesis of polyether polyols in simple microfluidic devices

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Figure S1. Photographs of SIMM-V2 and the inlay [S1].

Figure S2. The mixing principle of SIMM-V2 [S2]

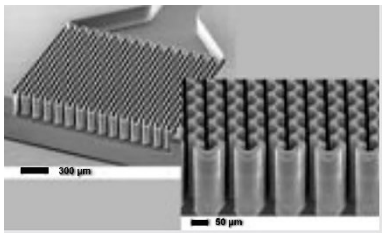

Figure S3. SEM images of the channels on the inlay of SIMM-V2 [S2]

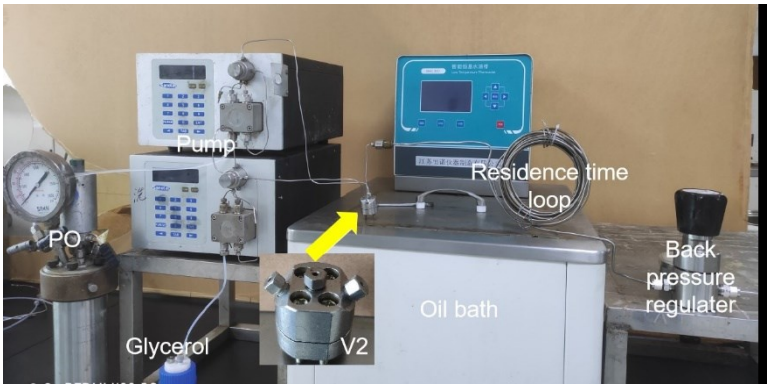

Figure S4. Photograph of the setup.

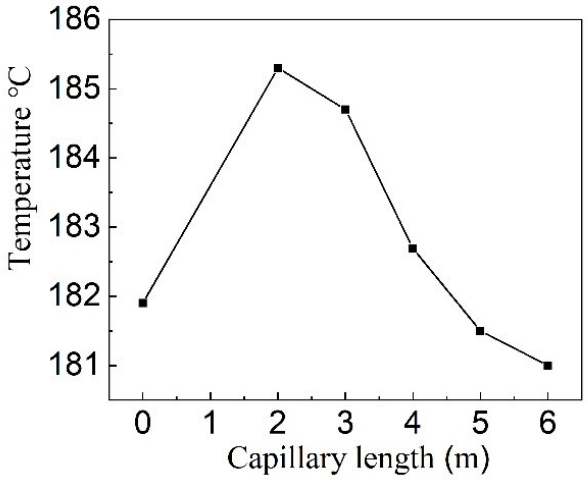

Figure S5. Temperature change along the capillary at the reaction conditions of the PO to glycerol molar ratio of 4:1, the feed flow rate of 2 ml/min and the capillary inner diameter of 0.5 mm at 180 °C, 10 MPa pressure and 35 s residence time.

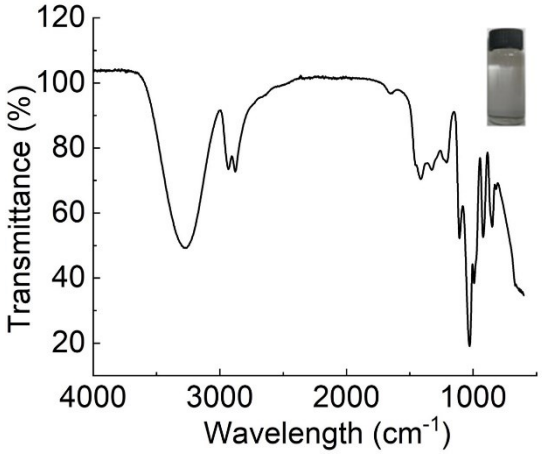

Figure S6. IR spectrum of the transparent product.

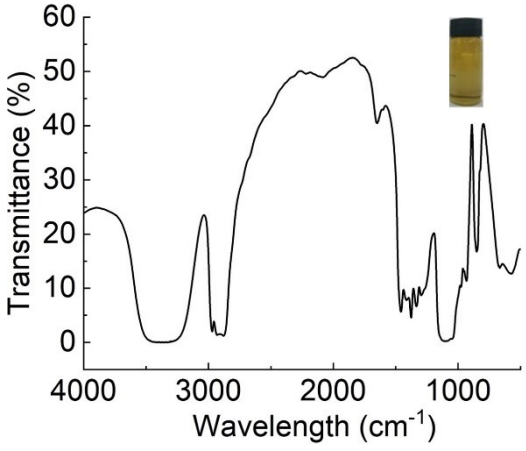

Figure S7. IR spectrum of the product with light yellow color.

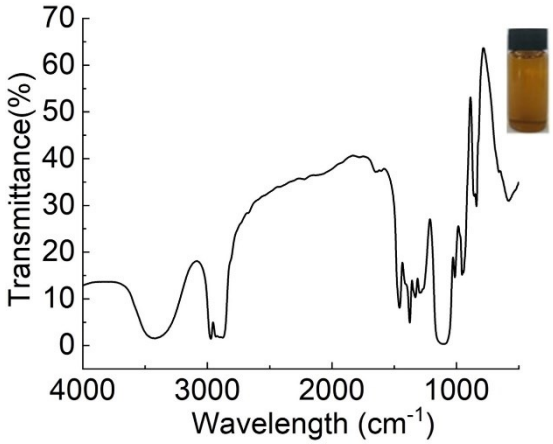

Figure S8. IR spectrum of the product with brown color.

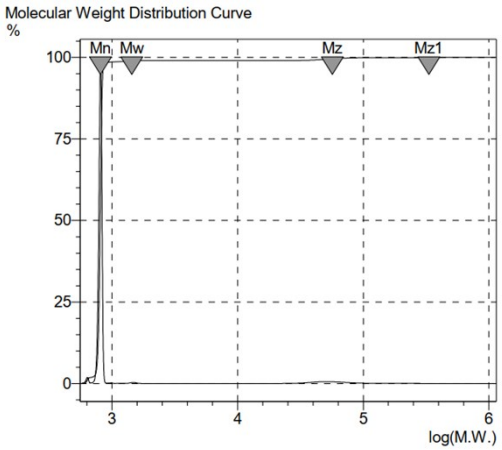

Figure S9. Molecular weight distribution curve of the sample with molecular weight of 804 g/mol.

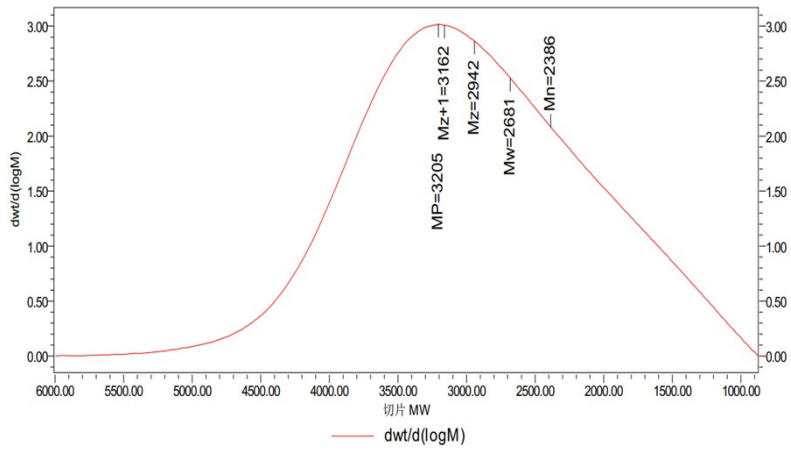

Figure S10. Molecular weight distribution curve of the sample with molecular weight of 2386 g/mol.

Table S1. Molecular weight analysis results of two samples

Sample	Mn(Daltons)	Mw(Daltons)	Mz(Daltons)	Mz+1(Daltons)	Mw/Mn
1	804	804	805	806	1.00
2	2386	2681	2942	3162	1.12

[S1] https://www.microflowcvo.com/competitor-evaluation. Accessed: Dec. 30, 2020.

[S2] IMM Catalogue 2009.