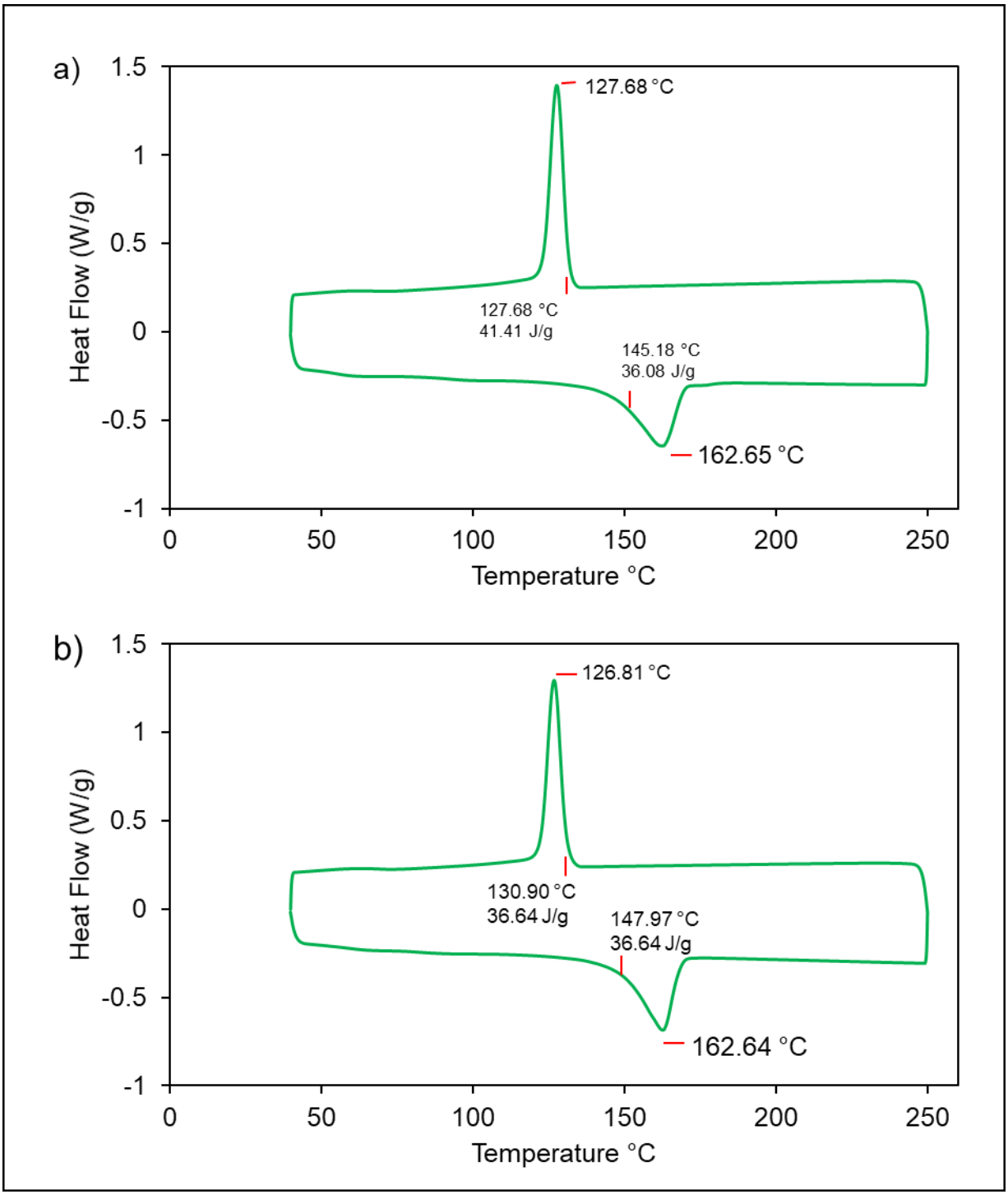

Figure S1. Differential Scanning Calorimetry (DSC) of different PVDF powders used for Hollow fiber membrane manufacture. (a) PVDF 1, USA-origin; (b) PVDF 2, China-origin.

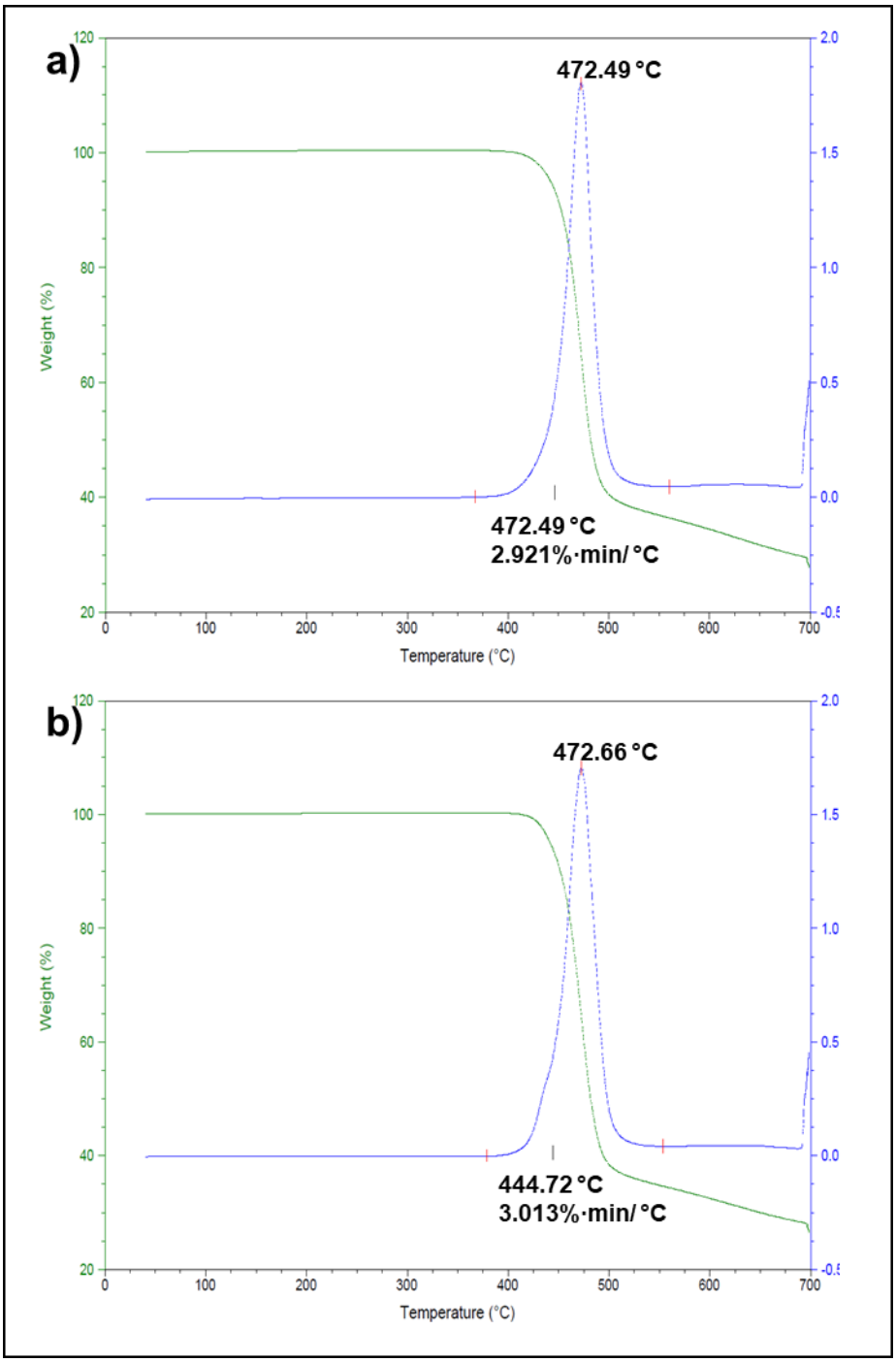

Figure S2. Thermogravimetric analysis (TGA) of different PVDF powders used for Hollow fiber membrane manufacture. (a) PVDF 1, USA-origin; (b) PVDF 2, China-origin.

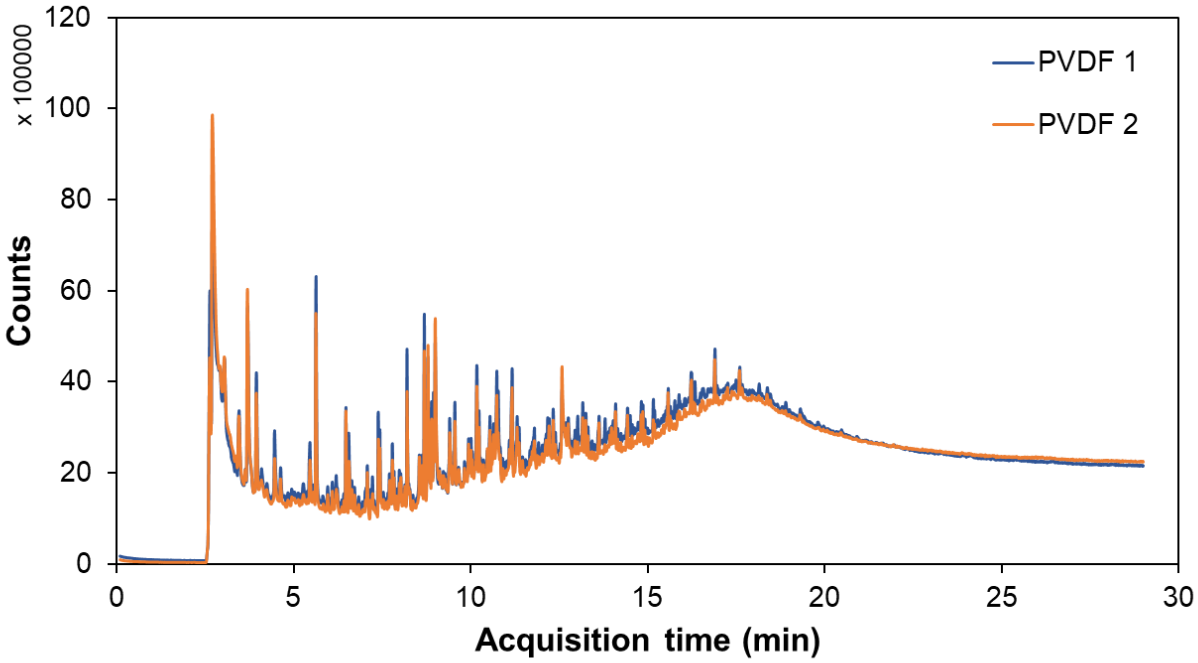

Figure S3. Pyrolysis-GCMS chromatograms of PVDF at 600 °C. Orange- PVDF 1; Green – PVDF 2.

Table S1. Characteristics of manufactured hollow fibers. FR: flowrate; CB: coagulation bath; ID: internal diameter; OD: outer diameter.

Polymer	Batch sample	Bore FR (mL/min)	CB (°C)	OD (mm)	ID (mm)	Porosity (%)	Contact Angle (°)
PVDF 1	**B1-a**	1.5	≈ 24	1.13 ± 0.01	0.73 ± 0.01	n/a	69.3
	B1-b	3.0	≈ 24	1.29 ± 0.02	0.95 ± 0.01	n/a	77.2
	B1-c	4.5	≈ 24	1.38 ± 0.01	1.09 ± 0.01	n/a	72.3
	B1-d	1.5	38.3	1.12 ± 0.01	0.70 ± 0.00	n/a	66.6
	B1-e	3.0	38.3	1.25 ± 0.03	0.89 ± 0.01	n/a	64.1
	B3-a	3.0	38.3	1.04 ± 0.01	0.63 ± 0.01	75.55 ± 0.2	72.0
	B3-b	1.5	38.3	0.98 ± 0.01	0.61 ± 0.01	75.85 ± 0.3	72.1
	B4-a	4.5	39.2	1.26 ± 0.01	0.83 ± 0.02	82.6 ± 0.2	80.1
	B4-b	6.8	39.2	1.19 ± 0.01	0.72 ± 0.01	82.5 ± 0.3	79.8
	B6-a	4.5	38.2	1.16 ± 0.01	0.74 ± 0.03	79.9 ± 0.2	82.6
	B6-b	6.8	38.2	1.26 ± 0.02	0.84 ± 0.02	82.2 ± 0.3	83.3
	B8-B12	4.5	37.4 ± 0.7	1.14 ± 0.01	0.67 ± 0.01	n/a	n/a
PVDF 2	**B2-f**	4.5	38.6	1.07 ± 0.02	0.66 ± 0.03	77.5 ± 0.2	70.6
	B2-g	6.8	38.6	1.16 ± 0.01	0.79 ± 0.01	77.5 ± 0.2	72.6
	B2-h	9.0	38.6	1.25 ± 0.01	0.90 ± 0.01	n/a	n/a
	B5-a	4.5	38.2	1.14 ± 0.03	0.75 ± 0.01	79.1 ± 0.2	72.8
	B5-b	6.8	38.2	1.28 ± 0.03	0.91 ± 0.01	81.2 ± 0.3	75.9
	B7	4.5-6.8	38.2	1.16 ± 0.01	0.73 ± 0.02	n/a	n/a

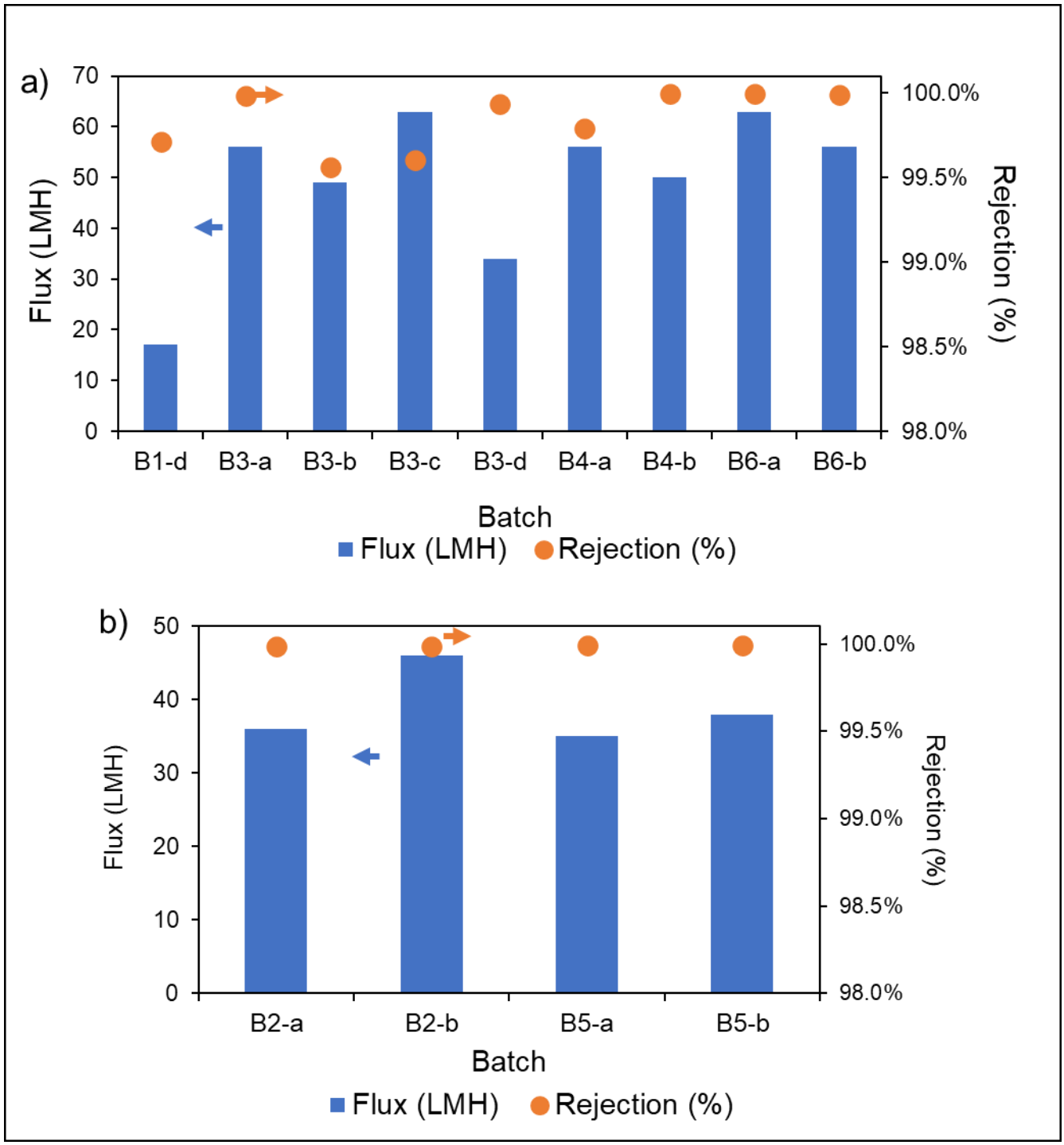

Figure S4. Flux and Rejection of VMD tests in each batch. All tests were performed for a time ≥ 1 hr and using 0.5-in modules. Descending values based on flux, L/m².hr (LMH). (a) Fibers made with PVDF 1 dope; (b) Fibers made with PVDF 2 dope.