

Figure S1. Color change of the prepared membranes from dark blonde ((a) Pristine GO and (b) GO/DCX RT) to dark brown ((c) GO/DCX HT).

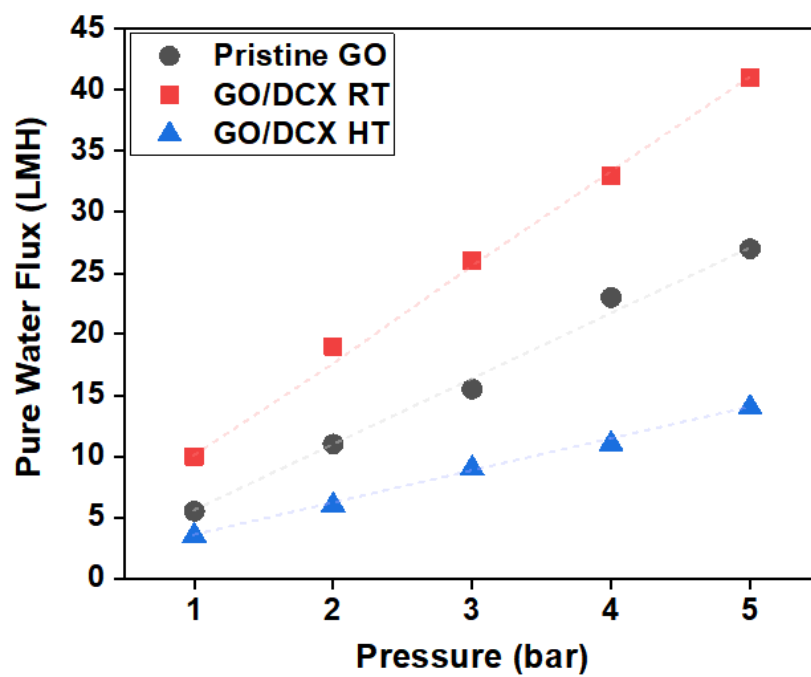


Figure S2. The pure water flux versus pressure (1–5 bar) of the prepared membranes.

Table S1 Dye rejection efficiencies and PWP of the GO membranes at 1 bar (feed solution concentration: 10 mg L⁻¹).

Membrane	Pure Water Permeance (LMH bar ⁻¹)	Dye rejection rate (%)				
		RB	MB	AF	RhB	MO
Pristine GO	4.5 ± 1	100	99.8	100	86.4	92.5
GO/DCX RT	11 ± 2	100	100	99.5	85.1	86.1
GO/DCX HT	3.5 ± 1.5	100	99.5	99.6	93.6	99.7

Table S2 Salt rejection efficiencies of the GO membranes under two different applied pressures (feed solution concentration: 500 mg L⁻¹).

Membrane	Applied Pressure Δp (bar)	Salt rejection rate (%)			
		Na ₂ SO ₄	NaCl	MgSO ₄	MgCl ₂
Pristine GO	3	82.5	45.2	26.9	16.8
	5	81.5	48.0	33.7	19.4
GO/DCX RT	3	89.1	51.6	29.9	18.6
	5	83.9	50.4	35.0	28.0
GO/DCX HT	3	92.0	54.4	28.3	15.6
	5	89.4	56.4	33.9	20.5

Table S3 Performance comparison of crosslinked GO-based NF membranes for water purification.

Membrane	Applied	Pure Water	Na ₂ SO ₄		Ref.
	Pressure Δp	Permeance	Concentration	Rejection	
	(bar)	(LMH bar ⁻¹)		(%)	
GO/DCX RT	3	8.7	500 ppm	89.1	This work
GO/DCX HT	3	3.0	500 ppm	92.0	This work
BPPO/EDA/GO	1	4.1	1000 ppm	56.2	[1]
CGOPVA-50	5	2.6 ± 1.1	20 mM	91.0	[2]
TEOA/GO	9	4	500 ppm	85.0	[3]
PDA-GO/β-CD-EDA	5	6.8	1000 ppm	71.9	[4]
Activated GO-PEI	1	7.0	2000 ppm	50.0	[5]
PEI/POSS-GO	4.5	7.2	1100 ppm	76.0	[6]
GO-PA/APVC	4	2.5	2000ppm	82.6	[7]
TA/GOQDs-0.5	2	9.1	1000 ppm	65.7	[8]
TMPyP/GO	8	1.2	2000 ppm	87.7	[9]
GO-EDA	2	2.3	500 ppm	82.4	[10]
GO/EDA_HPEI 60K	1	5	1000 ppm	40.0	[11]
PrGO6-50	8	4.2	500 ppm	81.5	[12]

Supplementary References

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