Electromigration separation of lithium isotopes with B12C4, B15C5 and B18C6 systems

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3.1 The effect of crown ethers with different lithium salts

Table S1. The α and δ^7Li value of B12C4 system.

lithium salts	δ^7Li$_A$	δ^7Li$_O$	δ^7Li$_C$	α(C/A)	α(O/A)	α(C/O)
LiCl	15.403	-4.798	-11.956	1.028	1.020	1.007
LiNTf$_2$	2.408	-11.614	-17.558	1.020	1.014	1.006

where subscript "A", "O" and "C" represent anolyte, organic solution and catholyte respectively.

Table S2. The α and δ^7Li value of B15C5 system.

lithium salts	δ^7Li$_A$	δ^7Li$_O$	δ^7Li$_C$	α(C/A)	α(O/A)	α(C/O)
LiCl	15.647	-0.640	-8.583	1.024	1.016	1.008
LiNTf$_2$	3.040	-17.684	-24.982	1.029	1.021	1.007

where subscript "A", "O" and "C" represent anolyte, organic solution and catholyte respectively.

Table S3. The α and δ^7Li value of B18C6 system.

lithium salts	δ^7Li$_A$	δ^7Li$_O$	δ^7Li$_C$	α(C/A)	α(O/A)	α(C/O)
LiCl	15.183	8.0129	4.258	1.011	1.007	1.004
LiNTf$_2$	2.351	-6.245	-8.664	1.011	1.009	1.002

where subscript "A", "O" and "C" represent anolyte, organic solution and catholyte respectively.

3.2 The effect of crown ethers under different electric field

Table S4. The α and δ^7Li value of B12C4 system.

voltage	δ^7Li_A	δ^7Li_O	δ^7Li_C	α(C/A)	α(O/A)	α(C/O)
2 V	7.294	-12.301	-10.513	1.018	1.020	0.998
6 V	7.437	-9.610	-1.221	1.009	1.017	0.992
12 V	7.927	-9.817	-13.100	1.021	1.018	1.003
16 V	15.043	-4.798	-11.956	1.028	1.020	1.007

where subscript "A", "O" and "C" represent anolyte, organic solution and catholyte respectively.

Table S5. The α and δ^7Li value of B15C5 system.

voltage	δ^7Li_A	δ^7Li_O	δ^7Li_C	α(C/A)	α(O/A)	α(C/O)
2 V	13.614	-10.097	9.214	1.004	1.024	0.981
6 V	7.615	-8.311	-10.424	1.016	1.014	1.002
12 V	7.893	-5.409	-11.337	1.022	1.016	1.006
16 V	15.647	-0.640	-8.583	1.024	1.016	1.008

where subscript "A", "O" and "C" represent anolyte, organic solution and catholyte respectively.

Table S6. The α and δ^7Li value of B18C6 system.

voltage	δ^7Li_A	δ^7Li_O	δ^7Li_C	α(C/A)	α(O/A)	α(C/O)
2 V	14.488	6.700	6.455	1.008	1.008	1.000
6 V	14.704	5.565	4.574	1.010	1.009	1.001
12 V	14.955	5.438	3.626	1.011	1.009	1.002
16 V	15.183	8.0129	4.258	1.011	1.007	1.004

where subscript "A", "O" and "C" represent anolyte, organic solution and catholyte respectively.