

**Electronic Supporting Information**

**Separation of rare earth ions from ethylene glycol  
(+LiCl) solutions by non-aqueous solvent extraction  
with Cyanex 923**

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Table S1. Viscosity of the rare-earth feed solution as a function of LiCl concentration (20 °C).

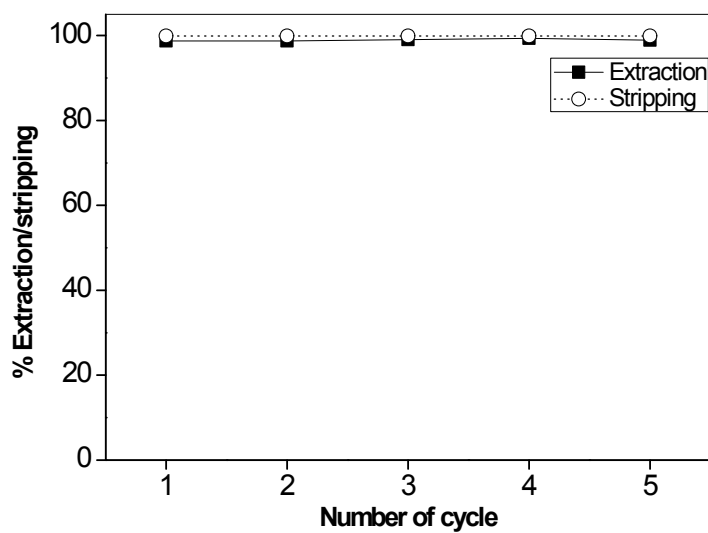
Feed composition	Viscosity (mPa·s)
Ethylene glycol	17.5
Ethylene glycol + 2 M LiCl	53.0
Ethylene glycol + 4 M LiCl	211
La(III)-50g/L+ 0 M LiCl	30
Feed + 1 M LiCl	52
Feed + 2 M LiCl	96
Feed + 3 M LiCl	180
Feed + 4 M LiCl	308

Feed: a mixture of 9 REEs, each of ~ 5 g/L in ethylene glycol

Table S2. Viscosity of the rare-earth feed solution as a function of temperature

Temperature, °C	Viscosity (mPa·s)
20	124
30	72
40	45
50	30
60	21

Feed: a Mixture of 9 REEs, each of ~5 g/L in ethylene glycol(+ 2 M LiCl)



**Figure S1.** Recycling and reuse of 1 M Cyanex<sup>®</sup> 923 for the extraction and stripping of Yb(III) for five cycles.