

## Supplementary Materials

# Extraction of Lanthanides(III) from Nitric Acid Solutions with N,N'-dimethyl-N,N'-dicyclohexyldiglycolamide into Bis(trifluoromethylsulfonyl)imide-Based Ionic Liquids and Their Mixtures with Molecular Organic Diluents

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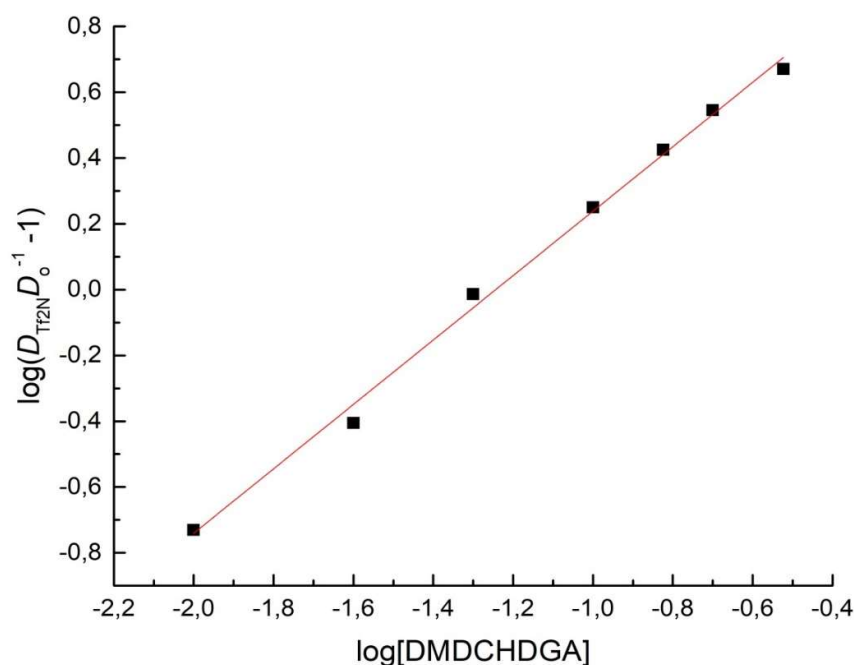
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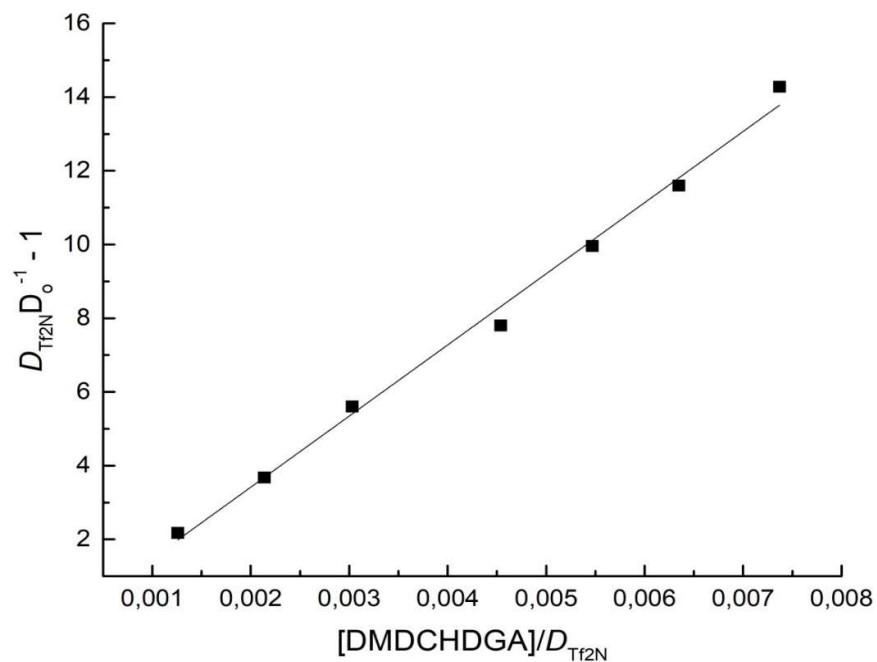
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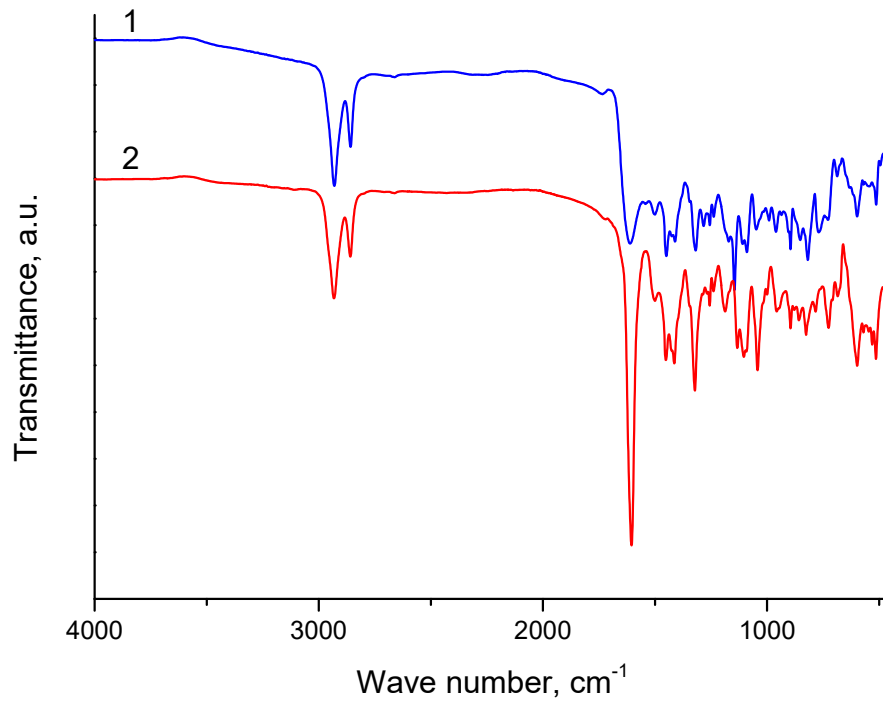
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**Figure S1.** Dependence of  $\log(D_{T2N} D_o^{-1} - 1)$  vs.  $\log[\text{DMDCHDGA}]$ .



**Figure S2.** Dependence of  $(D_{Tf2N} D_o^{-1} - 1)$  vs.  $[DMDCHDGA]_{(org)}/D_{Tf2N}$ .



**Figure S3.** IR spectra of samples 6 (0.1 M DMDCHDGA /DCE//3 M HNO<sub>3</sub>) and 7 (0.1 M DMDCHDGA /DCE//3 M HNO<sub>3</sub> + Eu<sup>3+</sup>).