Electronic Supplementary Information for

Boron–based electrolyte solutions with wide electrochemical windows for Rechargeable Magnesium Batteries

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Fig. S1 Electrochemical performance in different boron based electrolytes
Fig. S2 $^1H$-NMR spectra of Mes$_3$B in CDCl$_3$

Fig. S3 Aromatic region of the $^{13}$C-NMR spectra measured with boron based electrolyte solutions of the following solutions: (red) PhMgCl/THF, (green) Mes$_3$B/THF, (blue) Mes$_3$B-PhMgCl/THF, (black) Mes$_3$B-(PhMgCl)$_2$/THF.
Fig. S4 Raman spectra of (a) THF solvent, (b) 0.5 M PhMgCl in THF, (c) 0.5 M Mes$_3$B in THF, (d) 0.5 M Mes$_3$B-PhMgCl/THF, (e) 0.5 M Mes$_3$B-(PhMgCl)$_2$/THF.