

ADVANCED FUNCTIONAL MATERIALS

Supporting Information

for *Adv. Funct. Mater.*, DOI: 10.1002/adfm.201909140

Mixed Electronic and Ionic Conduction Properties
of Lithium Lanthanum Titanate

*Michael J. Wang, Jeffrey B. Wolfenstine, and Jeff Sakamoto**

Supporting Information

Mixed Electronic and Ionic Conduction Properties of Lithium Lanthanum Titanate

Michael J. Wang, Jeffrey B. Wolfenstine and Jeff Sakamoto*

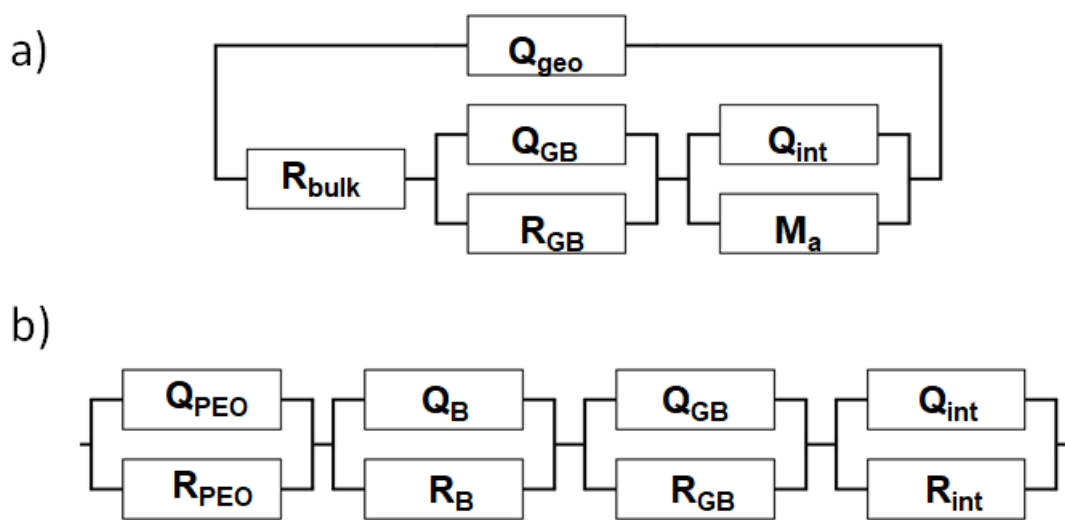


Figure S1. a) Equivalent circuit for determining ionic conductivity of o-LLTO using the Li^+ blocking configuration (Au/o-LLTO/Au). b) Equivalent circuit for determining ionic conductivity of r-LLTO using the e^- blocking configuration (Li/PEO/r-LLTO/PEO/Li).

Table S1. Fit values for EIS spectra shown in Figure 3 using the equivalent circuits shown in Figure S1.

Au/o-LLTO/Au	ρ [$\text{k}\Omega \text{ cm}$]	Q [F cm^{-2}]	σ [mS cm^{-1}]
Bulk	1.37	78.4×10^{-10}	0.733
Grain Boundary	218	2.65×10^{-8}	0.00460
Li/PEO/r-LLTO/PEO/Li	ρ [$\text{k}\Omega \text{ cm}$]	Q [F cm^{-2}]	σ [mS cm^{-1}]
Bulk	1.60	70.2×10^{-10}	0.625
Grain Boundary	110	0.329×10^{-8}	0.00908
PEO	158	12.7×10^{-10}	0.00631