

Electronic Supplementary Information
for
PEO Infiltration of Porous Garnet-Type Lithium-Conducting Solid Electrolyte Thin
Films

Aamir Iqbal Waidha ^{1,2}, Vanita Vanita ^{1,2}, Oliver Clemens ^{1,2,*}

^a Materials Synthesis Group, Institute for Materials Science, University of Stuttgart,
Heisenbergstraße 3, 70569 Stuttgart, Germany

^b Institut für Materialwissenschaft, Fachgebiet Materialdesign durch Synthese,
Technische Universität Darmstadt, 64287 Darmstadt, Germany

* Corresponding Author:

Fax: +49 711 685 51933

E-Mail: oliver.clemens@imw.uni-stuttgart.de

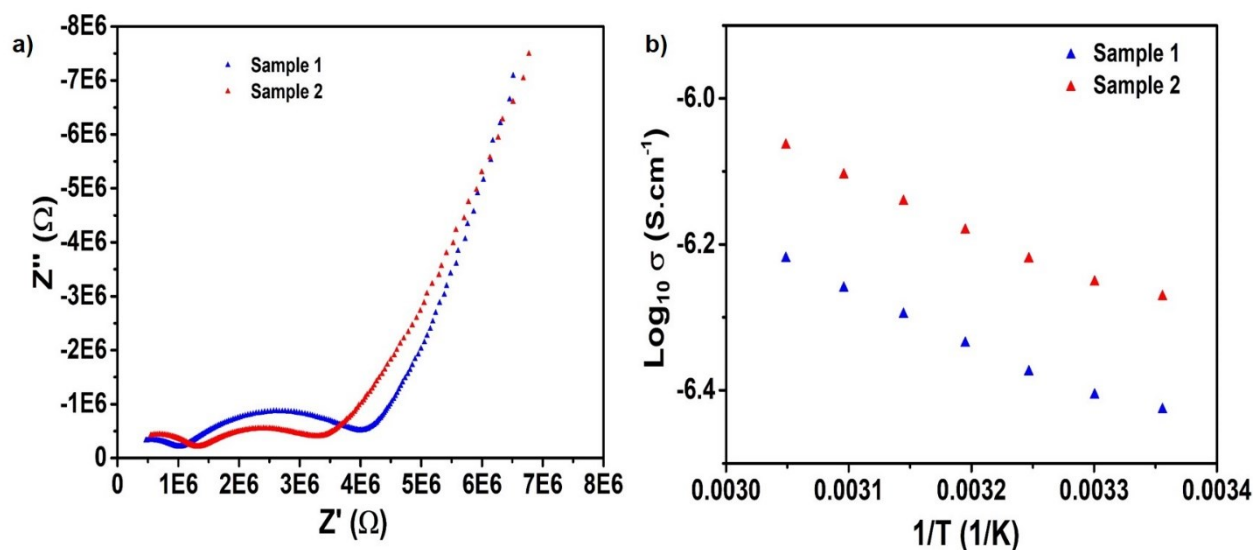


Figure S1: a) Nyquist plot for two different infiltrated cubic Al-doped garnet films measured at 298 K. b) Temperature dependent Arrhenius plot measured for the two different Al-doped garnet films measured in the temperature range of 298 K to 328 K

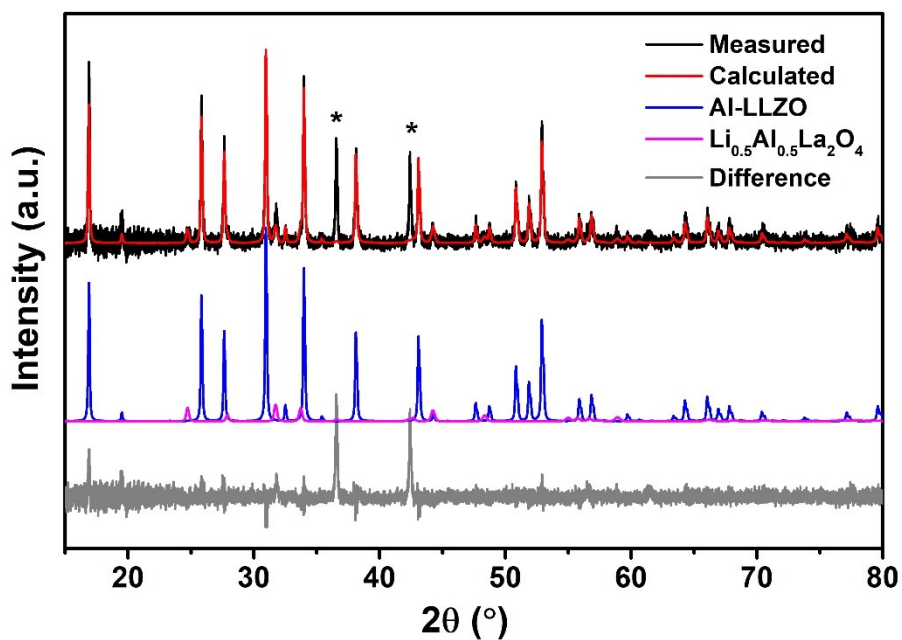


Figure S2: Rietveld fit of the X-ray diffractogram of the Al-doped LLZO garnet thin film annealed for 240 minutes

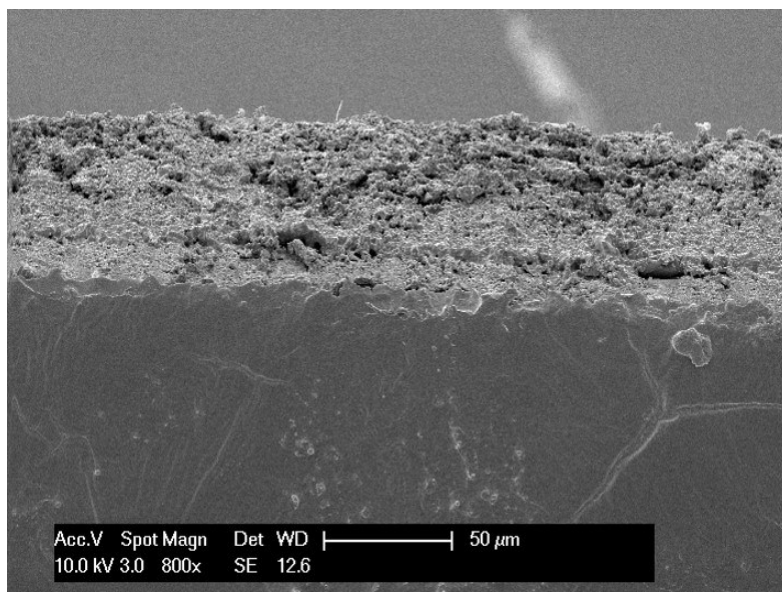


Figure S3: Cross sectional view of the garnet thin film.

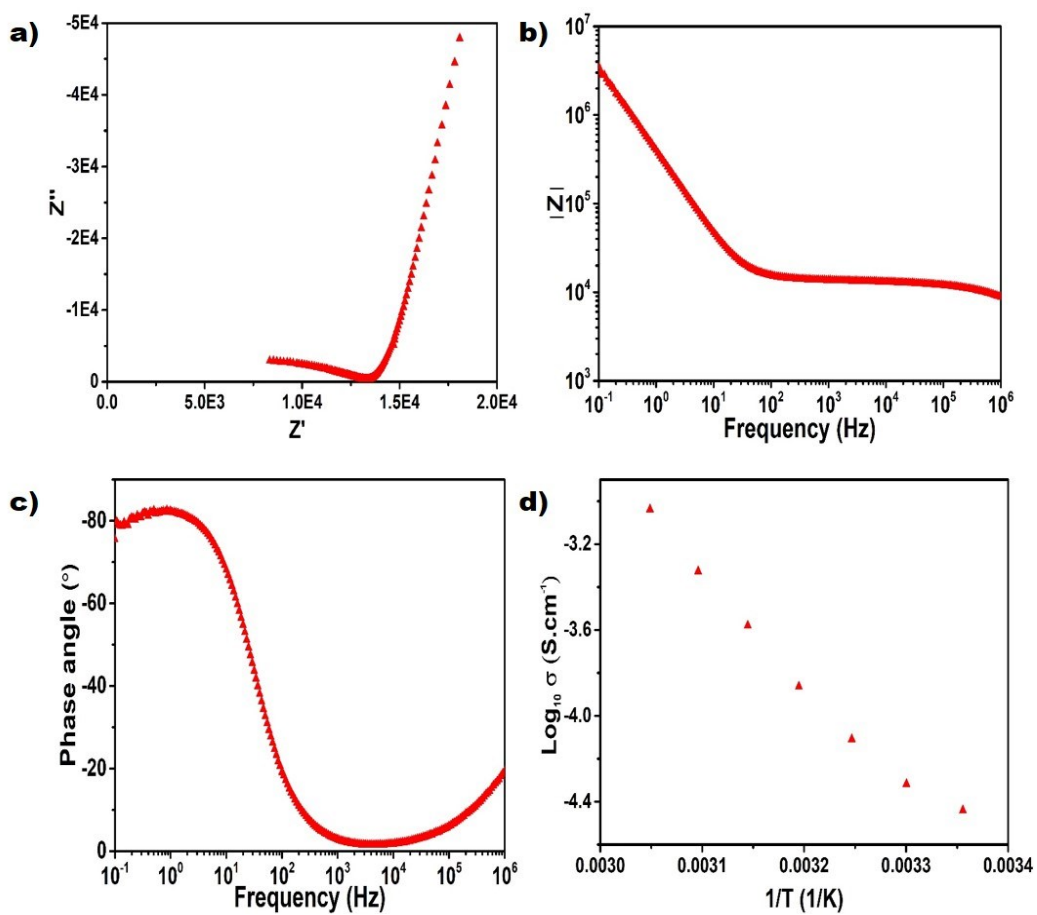


Figure S4: Impedance measurements carried out for the PEO thin film at 298 K