Synthesis and characterization of novel Li-stuffed garnet-like Li$_{5+2x}$La$_3$Ta$_{2-x}$Gd$_x$O$_{12}$ (0 ≤ x ≤ 0.55): structure-property relationships

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Supporting information
Figure S1. PXRD patterns of as-prepared Gd-doped Li$_{5-2x}$La$_3$Ta$_{2-x}$Gd$_x$O$_{12}$ ($0 \leq x \leq 0.55$). Major impurity peaks are denoted by “*” (red arrow) correspond to LaLiO$_2$ (JCPDS No. 19-0722), “$” (blue arrow) corresponds to Li$_2$CO$_3$ (JCPDS No. 22-1141), and “#” (green arrow) corresponds to Ta$_2$O$_5$ (JCPDS No. 18-1304).
Figure S2. The real part of impedance as a function of frequency of Li$_{5+2x}$La$_3$Ta$_{2-x}$Gd$_x$O$_{12}$ ($0 \leq x \leq 0.55$) at different temperatures.