Supplementary Material

Revealing the Support Effect on Enhancing Lithium Borohydride Ionic Conductors

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Performance	30% $LiBH_4$/SM	50% $LiBH_4$/SM	70% $LiBH_4$/SM	47% $LiBH_4$/SM	47% $LiBH_4$/MSN	47% $LiBH_4$/SBA-15
Impedance/Ω	5×10^5	3×10^5	6×10^5	2.6×10^5	1.2×10^5	1617
Conductivity/ S cm^{-1}	8.9×10^{-8}	1.5×10^{-7}	8.6×10^{-8}	2×10^{-7}	7.5×10^{-7}	2.9×10^{-5}

Table S1. Resistance and ionic conductivity of different $LiBH_4/SiO_2$ composites at 35 °C

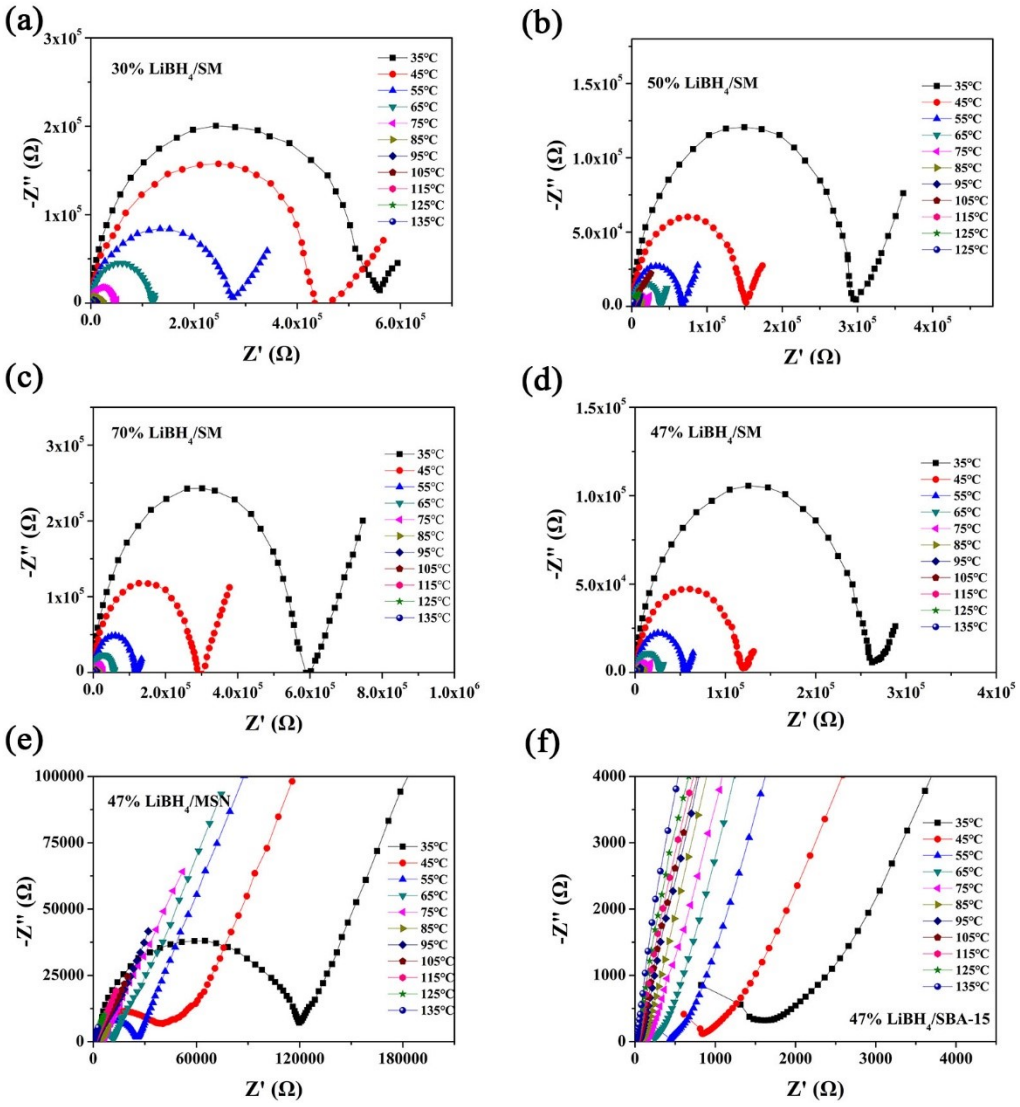

Figure S1. Electrochemical impedance spectroscopy of $LiBH_4/SiO_2$ composites

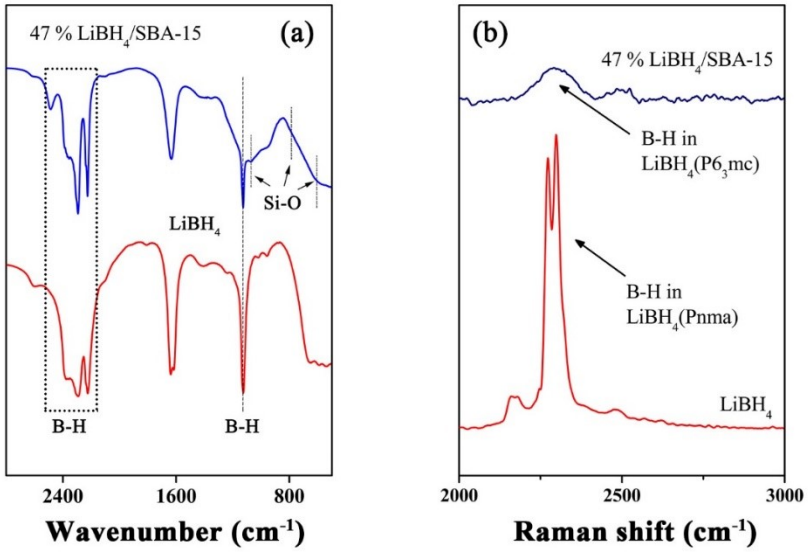

Figure S2. FTIR and Raman curves for the pristine $LiBH_4$ and 47% $LiBH_4$/SBA-15.

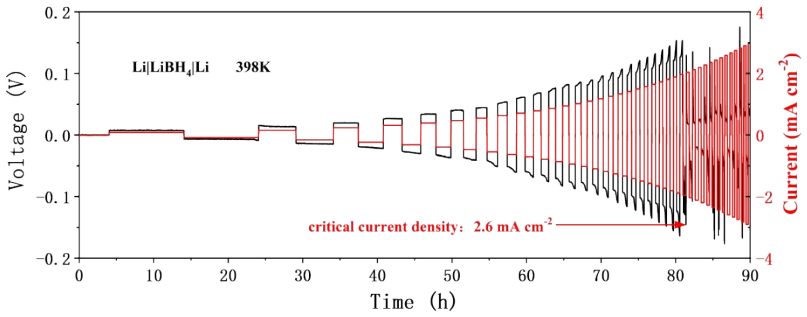

Figure S3. The critical current density curves of pristine $LiBH_4$.