Supporting information for

Chemistry of Electrolyte Reduction on Lithium Silicide

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Figure S1. XPS spectrum at the surface of LixSi thin film after electrolyte treatment.



Figure S2. XPS depth profile of the electrolyte treated Si wafer.



Figure S3. a) First cycle voltage profiles of lithium silicide in EC/DMC electrolyte with and without FEC; b) Cycle performance of lithium silicide in these two electrolytes.