

Supplementary materials for: “Valence electron energy-loss spectroscopy of silicon negative electrodes for lithium batteries”

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I – Core losses for Li_xSi reference alloys

In order to clearly demonstrate the variation of the respective intensities of the Li K and Si $L_{2,3}$ edges, experimental spectra for the four alloys are presented in Figure 1.

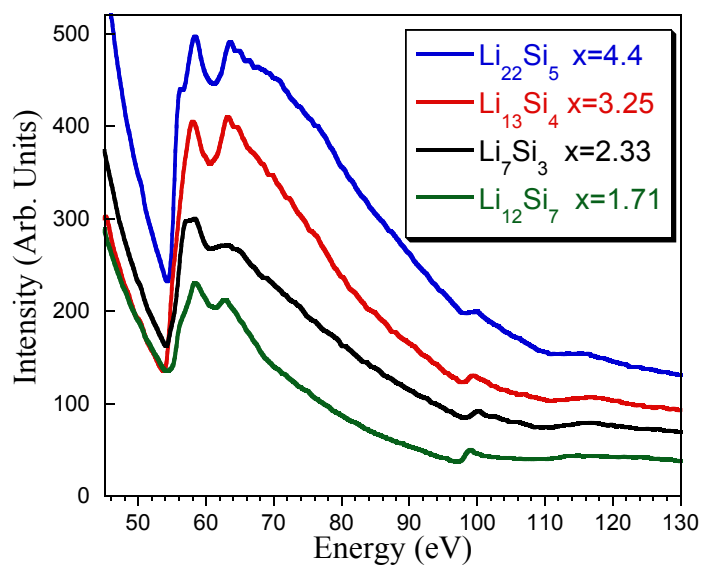


Figure 1: core loss EELS spectra for the four Li_xSi alloys.

II – Comparison between experimental and theoretical spectra.

Rather than comparing the complete set of experimental spectra with the complete set of theoretical ones (see paper), a one to one comparison is also useful. This comparison is presented in Figure 2.

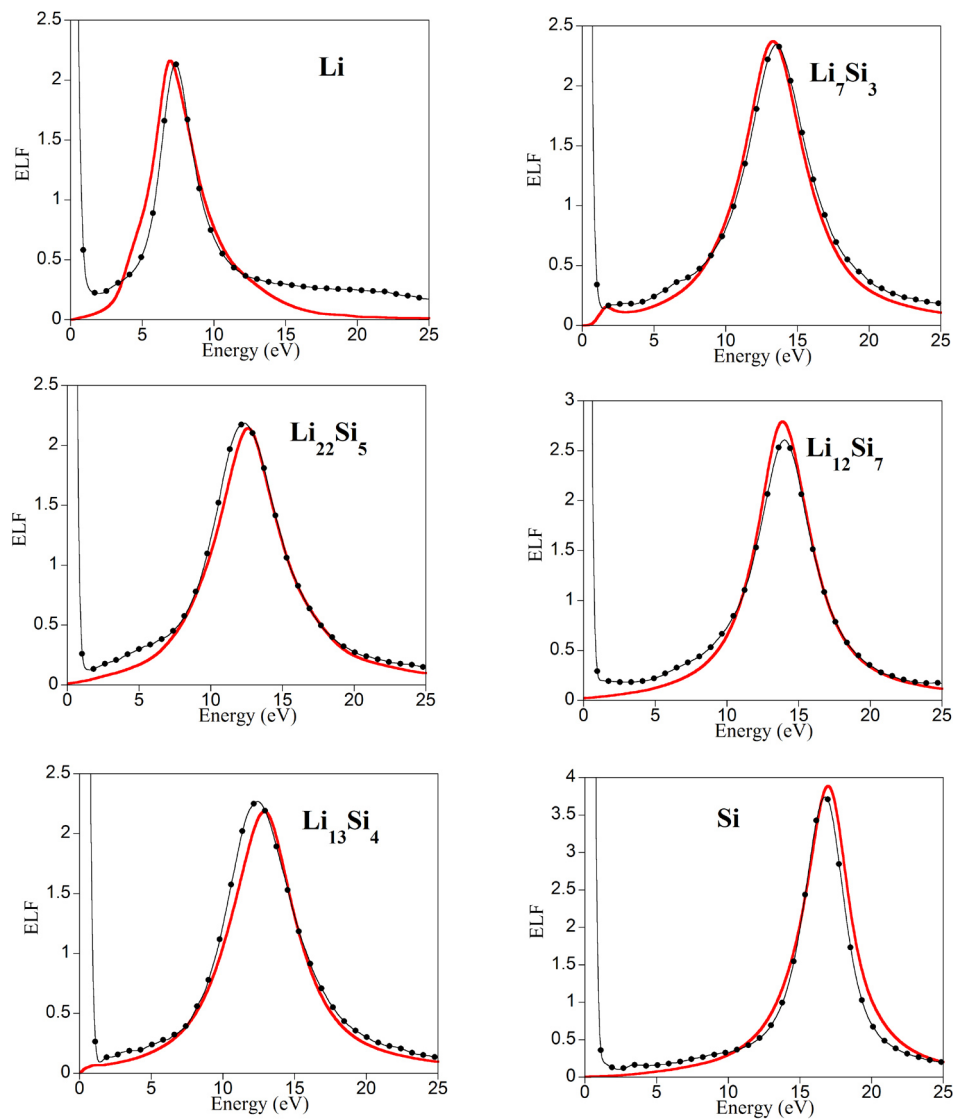


Figure 2: comparison of experimental (line with dots) with theoretical spectra (red line) for reference compounds.