Supporting Information

- Redox reaction by thermally excited charge carriers: towards sensitized thermal cells

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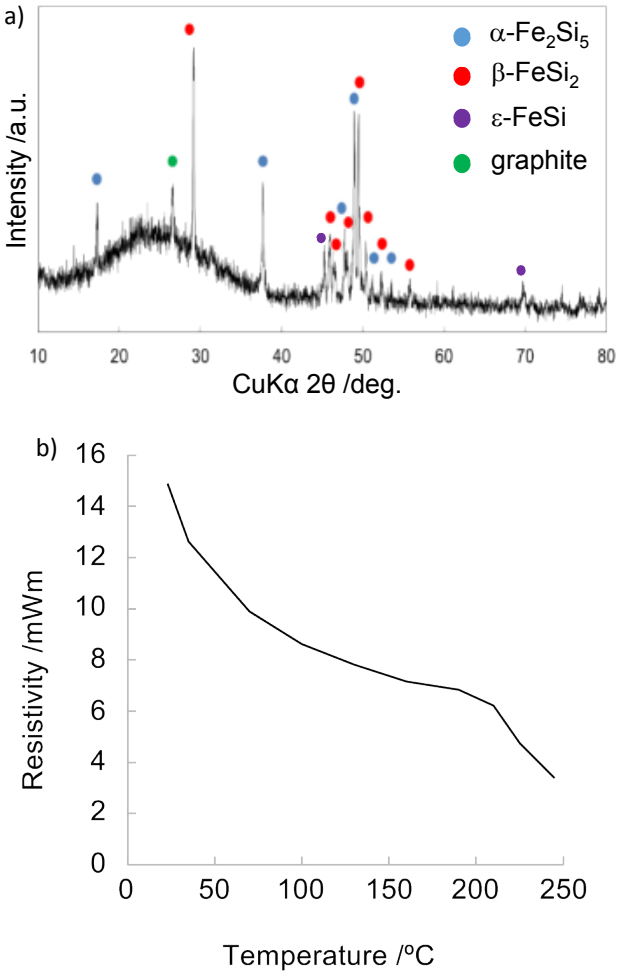

Figure S1. (a) XRD spectra and (b) temperature dependence of resistivity of prepared $FeSi_2$.

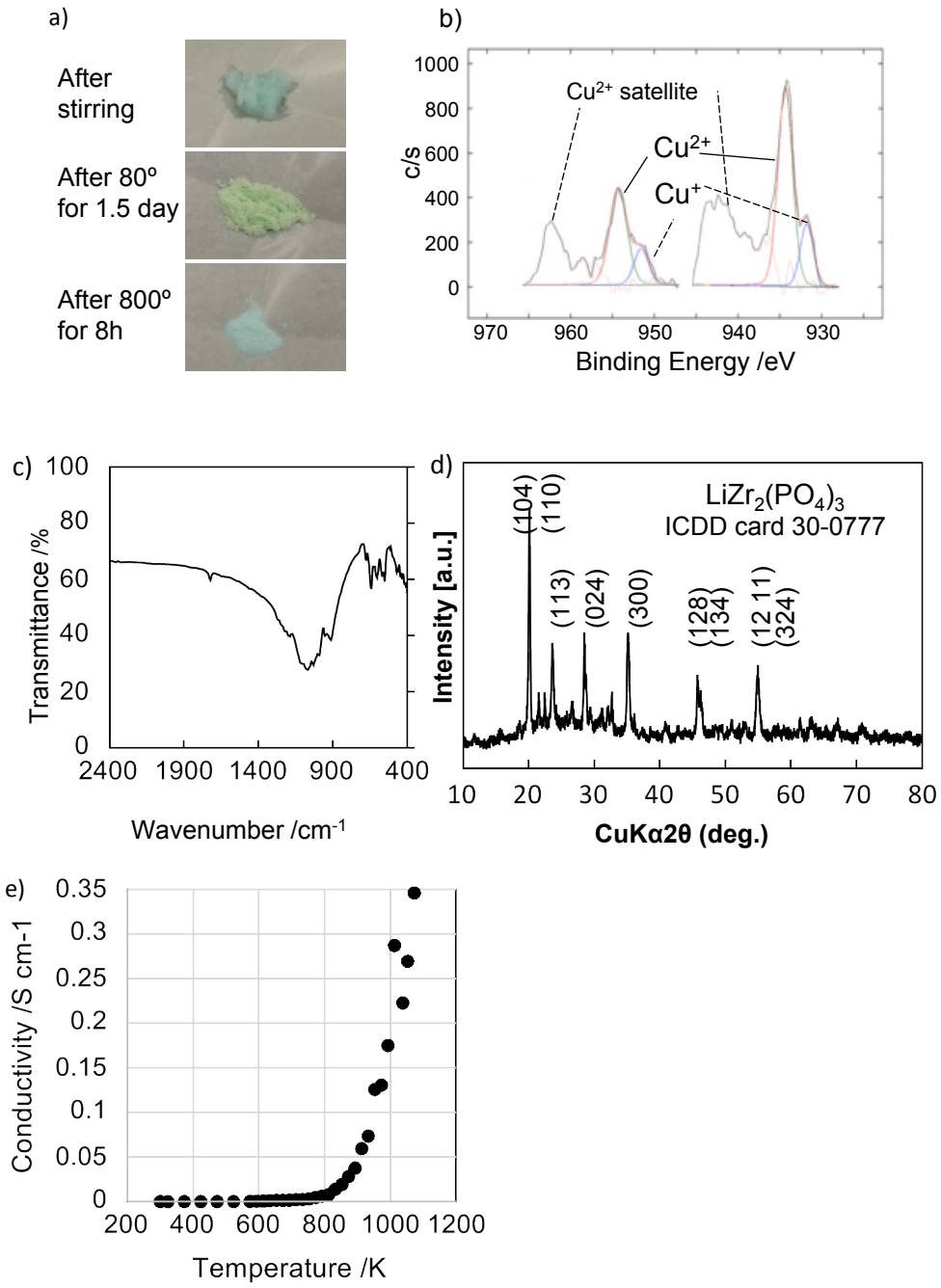

Figure S2. (a) The color change, (b) XPS spectra, (c) IR spectra, (d) XRD spectra and (e) the temperature dependence of electron conductivity of prepared CUSICON by liquid phase method.

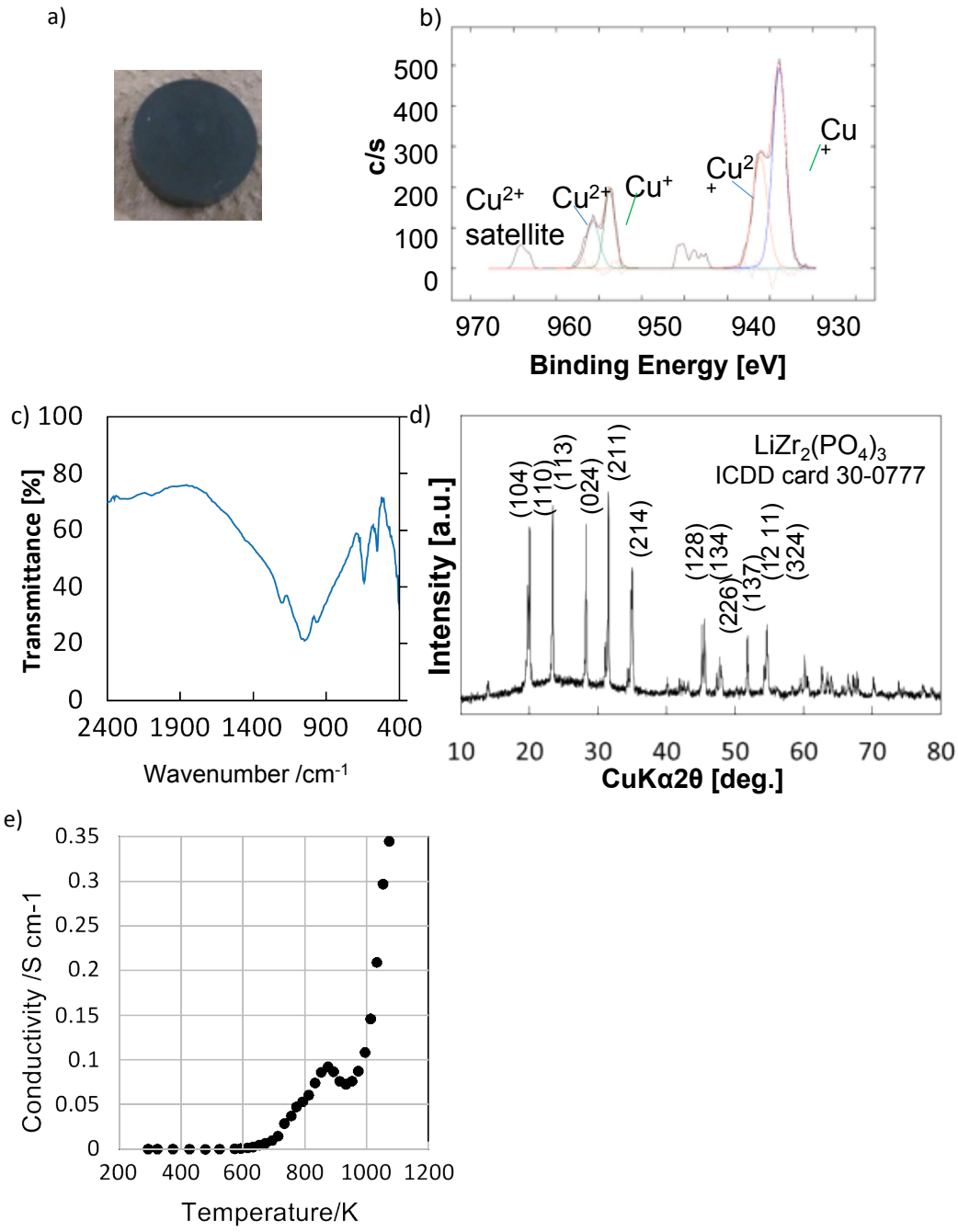

Figure S3. (a) The color change, (b) XPS spectra, (c) IR spectra, (d) XRD spectra and (e) the temperature dependence of electron conductivity of prepared CUSICON by solid phase method.

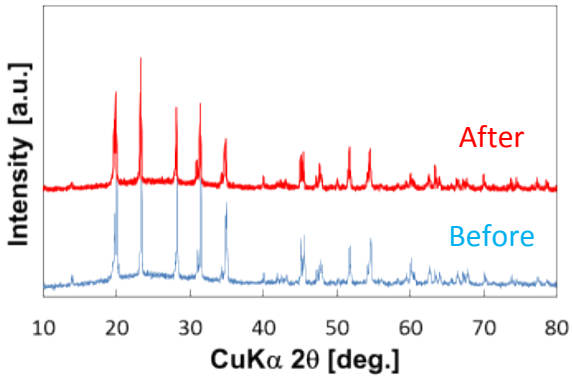

Figure S4. XRD patterns of CUSICON fabricated by solid phase method before and after battery characteristics measurement for 35 h in Nitrogen.

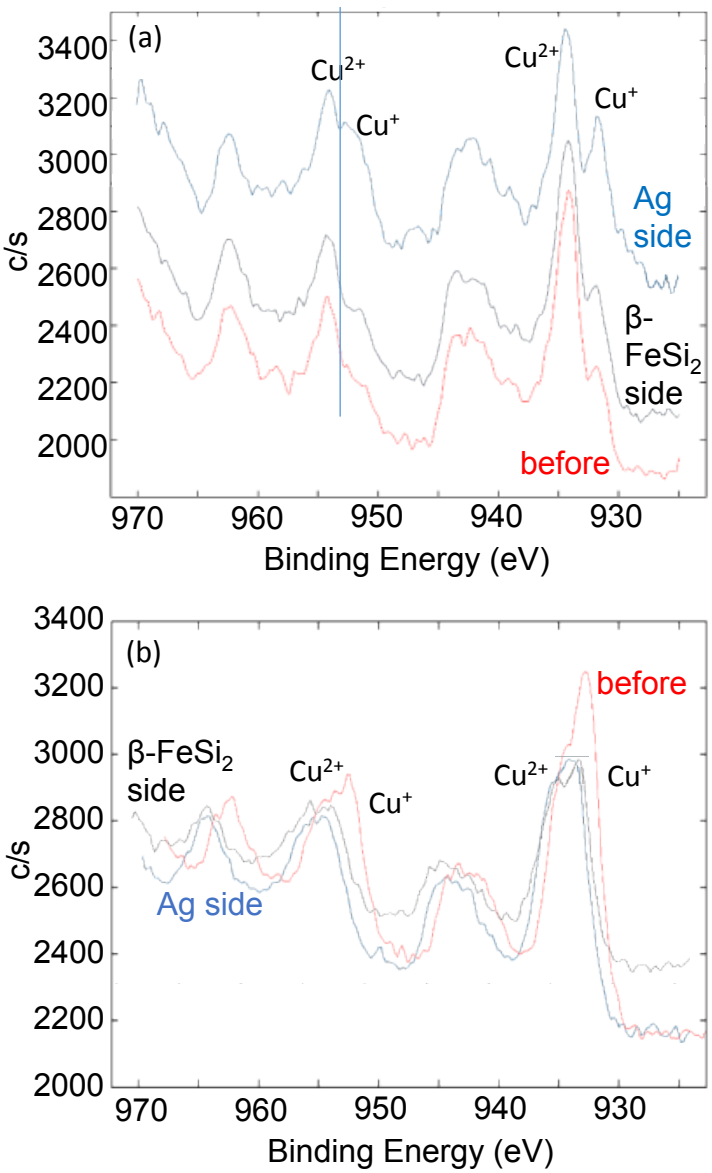

Figure S5. XPS spectra of the CUSICON fabricated by liquid (a) and solid (b) phase methods before (red) and after the cell characteristic measurement on the FeSi2 side (black) and conductive paste side (blue).