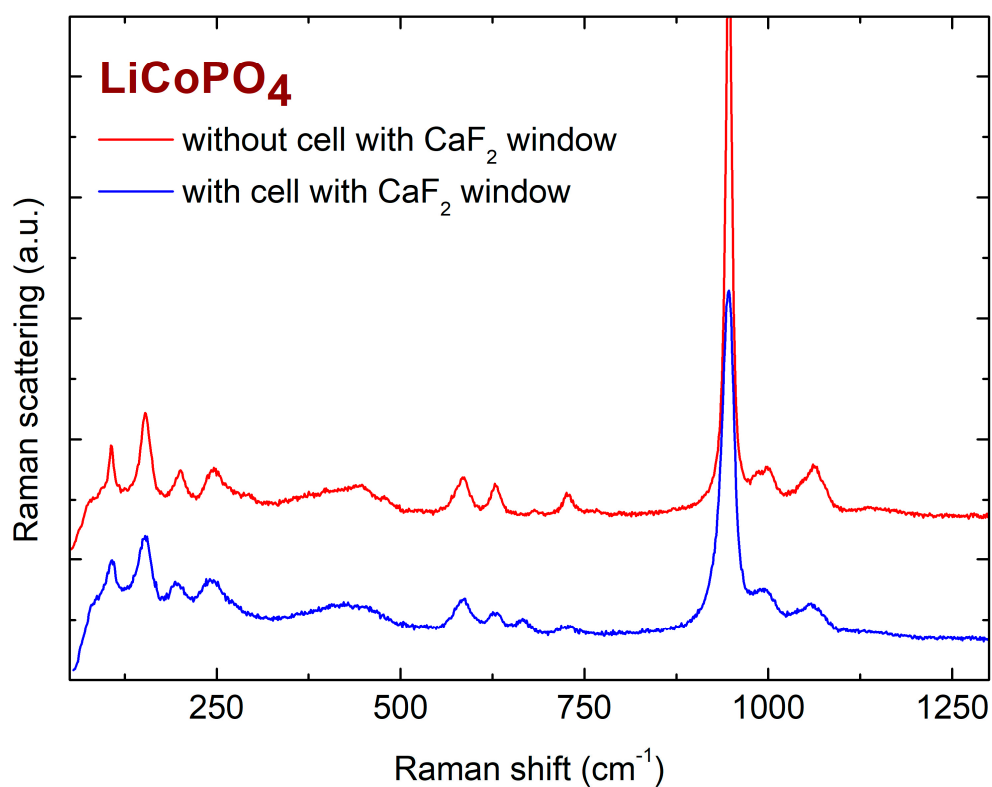


**Figure S1.** Comparison of the OPTIR spectrum of a Whatman separator measured with and without the CaF<sub>2</sub> window in place. On the right the optical image of the separator through the optical window is reported. One can see the fibers that compose the sample.



**Figure S2.** Comparison of the Raman spectrum of LiCoPO<sub>4</sub> powders measured with and without the CaF<sub>2</sub> window in place.