

Supplementary Materials: The following are available online at www.mdpi.com/link, Figure SI-1 and SI-2

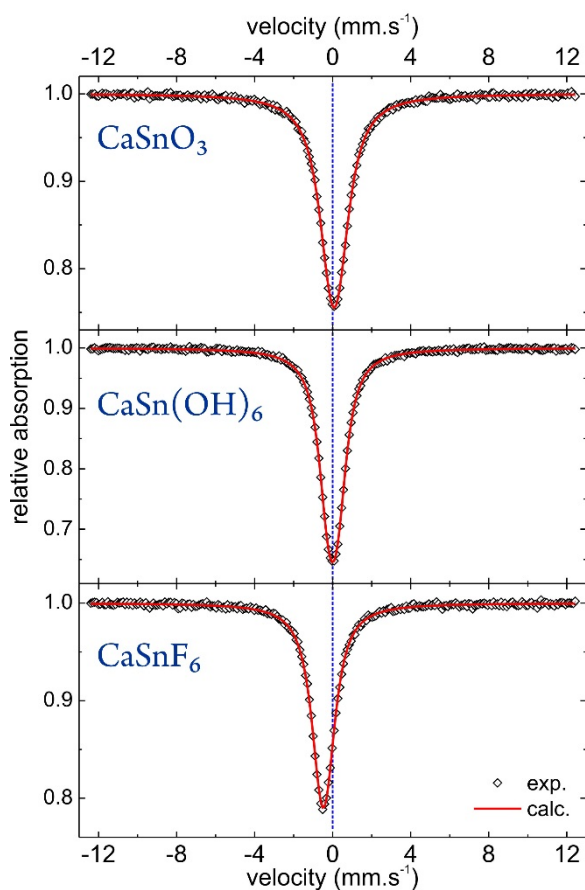


Figure SI-1: Low-temperature (4.2 K) experimental (black dots) and calculated (red line) ^{119}Sn Mössbauer spectra of the CaSnO_3 , CaSn(OH)_6 and CaSnF_6 compounds. As the temperature decreases, the signals shift towards higher velocities due to second-order Doppler effect (at $T=4.2$ K $\delta[\text{CaSnO}_3]=0.053(2)$ $\text{mm}\cdot\text{s}^{-1}$; $\delta[\text{CaSn(OH)}_6]=-0.021(2)$ $\text{mm}\cdot\text{s}^{-1}$; $\delta[\text{CaSnF}_6]=-0.487(2)$ $\text{mm}\cdot\text{s}^{-1}$).

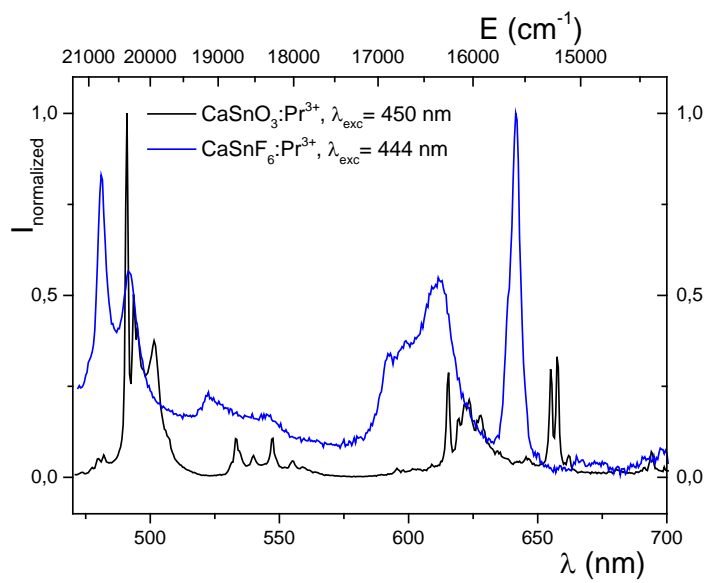


Figure SI2- Superimposed emission spectra of CaSnO₃: Pr³⁺ (black curve) and CaSnF₆: Pr³⁺ 2% (blue curve) (molar substitutions).