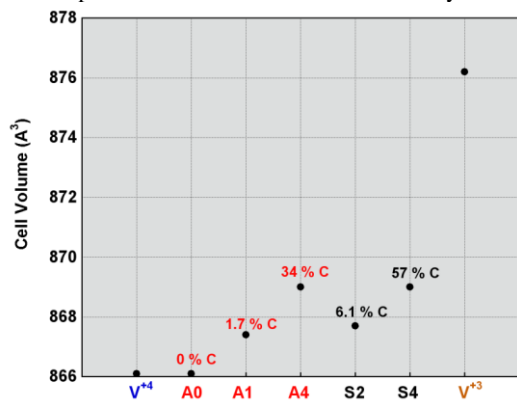
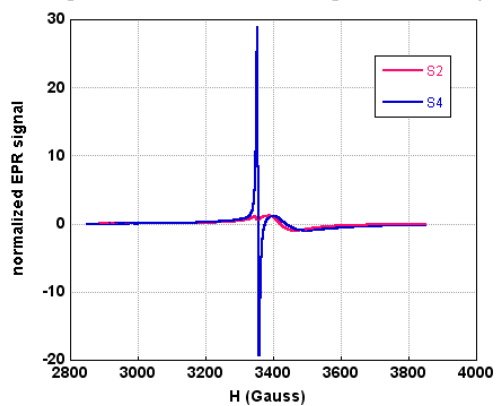


## SUPPLEMENTARY INFORMATION

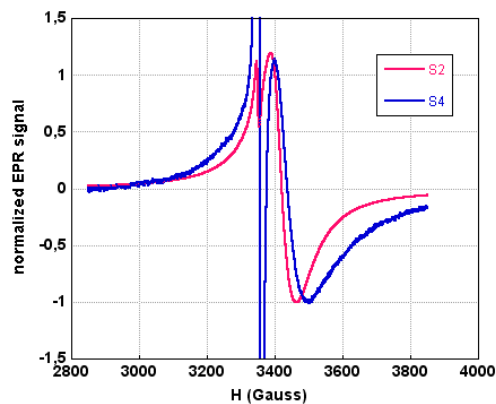
S1. Comparison of cell volume values for the synthesized samples with the  $V^{4+}$  and  $V^{3+}$  extremes



S2. EPR spectra of (a) S2 and S4 samples and (b) augmented view for S2 and S4.



a)



b)