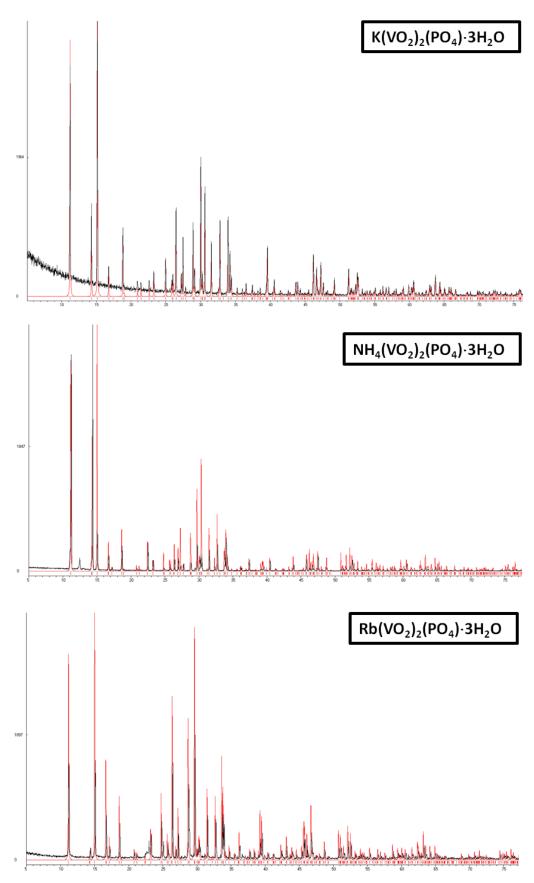
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## SUPPORTING INFORMATION

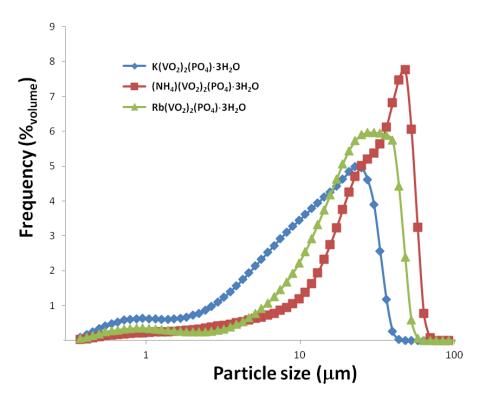
Influence of the Cation Size on the Second Harmonic Generation Response

of Chiral  $A(VO_2)_2(PO_4)\cdot 3H_2O$  (A=K<sup>+</sup>, NH<sub>4</sub><sup>+</sup> and Rb<sup>+</sup>)

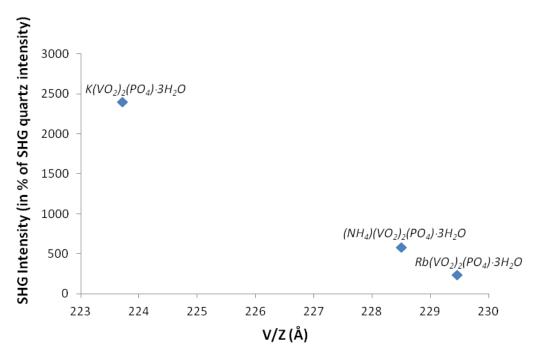
Romain Gautier<sup>a,b,\*</sup>, Sandy Auguste<sup>a</sup>, Simon Clevers<sup>c</sup>, Valérie Dupray<sup>c</sup>, Gerard Coquerel<sup>c</sup> and Eric Le Fur<sup>a,\*</sup>



**Figure S1.** Simulated and experimental powder diffraction patterns of compounds  $A(VO_2)_2(PO_4)\cdot 3H_2O$  (A=K<sup>+</sup>, NH<sub>4</sub><sup>+</sup> and Rb.



**Figure S2.** Particle size distribution for compounds  $A(VO_2)_2(PO_4)\cdot 3H_2O$  (A=K<sup>+</sup>, NH<sub>4</sub><sup>+</sup> and Rb<sup>+</sup>). The average size is about 18  $\mu$ m, 25  $\mu$ m and 32  $\mu$ m for the K, Rb and NH<sub>4</sub> analogues, respectively.



**Figure S3.** Comparison of SHG intensity of  $A(VO_2)_2(PO_4)\cdot 3H_2O$  (A=K<sup>+</sup>, NH<sub>4</sub><sup>+</sup> and Rb<sup>+</sup>) materials vs. volume V/Z.