

Supporting Information for

Local Structures of Solid Solutions $\text{Sr}_{1-x}\text{Y}_x\text{F}_{2+x}$ ($x = 0 \dots 0.5$) with Fluorite Structure Prepared by Sol-Gel and Mechanochemical Syntheses

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Table S 1. Calculated ¹⁹F chemical shifts of each coordination geometry [$\text{FSr}_{4-n}\text{Y}_n$] with $n = 0, 1, 2, 3, 4$

FSr₄	FSr₃Y	FSr₂Y₂	FSrY₃	FY₄
-88.1 ppm	-83.2 ppm	-78.3 ppm	-73.4 ppm	-68.4 ppm

Table S 2. Comparison of the measured ¹⁹F linewidths prepared by mechanochemical reaction and sol-gel synthesis.

sample	mechanochemical reaction	sol-gel synthesis
SrF ₂ :Y1	1.3 kHz	1.3 kHz
SrF ₂ :Y10	2.1 kHz	2.0 kHz