

## Supporting information

### Preparation, Electronic structure and Photoluminescence properties of RE (RE = Ce, Yb) -activated SrAlSi<sub>4</sub>N<sub>7</sub> yellow-red emitting phosphors for white-LEDs

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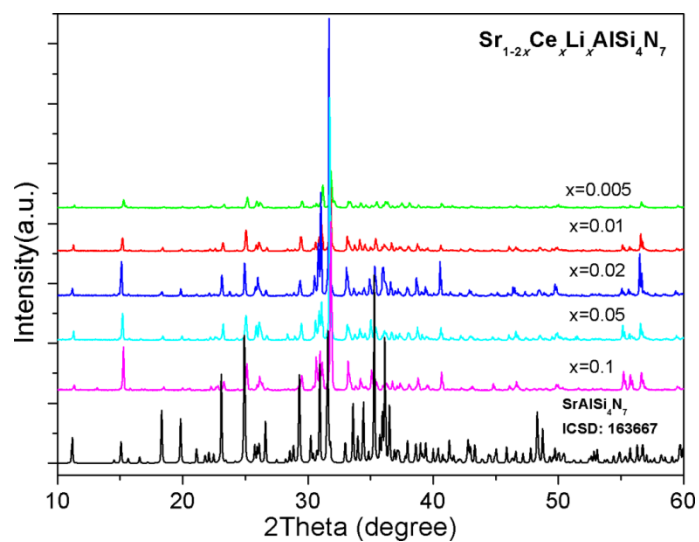


Fig. 1s Powder X-ray diffraction patterns of  $\text{Sr}_{1-2x}\text{Ce}_x\text{Li}_x\text{AlSi}_4\text{N}_7$  ( $0 \leq x \leq 0.1$ ).

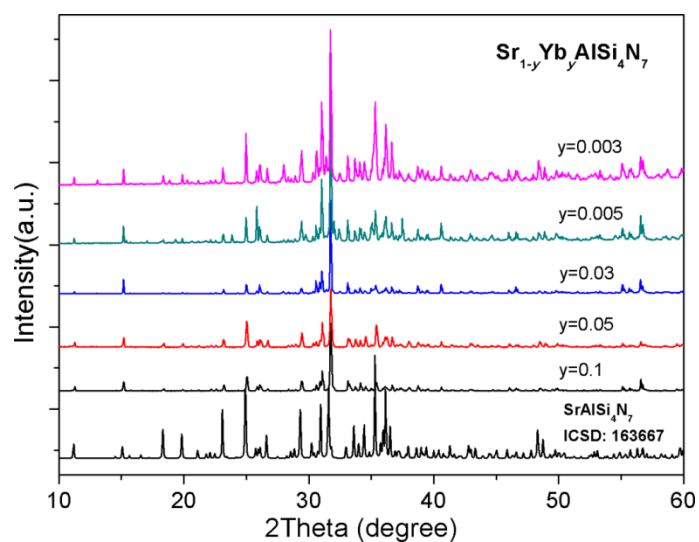


Fig. 2s Powder X-ray diffraction patterns of  $\text{Sr}_{1-y}\text{Yb}_y\text{AlSi}_4\text{N}_7$  ( $0 \leq y \leq 0.1$ ).