Supporting information

Highly efficient red-emitting Ca$_2$YSbO$_6$:Eu$^{3+}$ double perovskite phosphors for warm WLEDs

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Fig. S1 (a) SEM image of Ca$_2$Y$_{0.3}$SbO$_6$:0.7Eu$^{3+}$ sample and (b) the corresponding size distribution image.
**Fig. S2** The schematic energy level diagram of Eu$^{3+}$.

**Table S1** Lattice parameters of Ca$_2$YSbO$_6$:0.1Eu$^{3+}$ sample

<table>
<thead>
<tr>
<th>Formula</th>
<th>Ca$_2$YSbO$_6$:0.1Eu$^{3+}$</th>
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</thead>
<tbody>
<tr>
<td>Crystal system</td>
<td>Monoclinic</td>
</tr>
<tr>
<td>Space group</td>
<td>P2$_1$/n (14)</td>
</tr>
<tr>
<td>$a$ (Å)</td>
<td>5.611</td>
</tr>
<tr>
<td>$b$ (Å)</td>
<td>5.806</td>
</tr>
<tr>
<td>$c$ (Å)</td>
<td>8.057</td>
</tr>
<tr>
<td>$V$ (Å$^3$)</td>
<td>262.48</td>
</tr>
<tr>
<td>Chi$^2$</td>
<td>1.845</td>
</tr>
<tr>
<td>$R_p$</td>
<td>8.63%</td>
</tr>
<tr>
<td>$R_{wp}$</td>
<td>11.29%</td>
</tr>
<tr>
<td>$R_e$</td>
<td>6.12%</td>
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