Review of “Single-composition white light emission from Dy$^{3+}$ doped Sr$_2$CaWO$_6$,” by Yannan Dai, Shuai Yang, Yongkui Shan, Chun-Gang Duan, Hui Peng, Fan Yang, and Qingbiao Zhao (manuscript: materials-422091)

The authors present evidence for synthesis of luminescent white light emitting phosphors. The information is relevant to the phosphor research community, and may be of interest to other thin film luminescence researchers. The experiments and results are mostly well laid out, and seem to support the arguments presented by the authors. The manuscript needs some relatively heavy English editing (i.e., should clips in line 27 be “chips”?). Also, many of the figures are difficult to read, and should be larger (specifically: Figure 1, Figure 3, Figure 6, Figure 8 and Figure 9. It couldn’t hurt to have the other ones slightly larger, too). The title and abstract need to have the correct chemical subscripts and superscripts. Scientifically, I have a couple of criticisms:

1. Dy$^{3+}$ is not a drop-in replacement for Ca$^{2+}$, as the authors acknowledge in Table 1, but not in section 3.1 (or elsewhere). They should really write the formula as: Sr$_2$Ca(1-$1.5x$%)WO$_6$:$x$ mol% Dy$^{3+}$, which supports the charge neutrality of 2 Dy$^{3+}$ ions replacing 3 Ca$^{2+}$ ions in the lattice during doping. The XRD does not change much with the doping, as the authors point out, so the overall crystal structure does not appear to distort under these low doping conditions, but, nonetheless, the stoichiometry should be stated correctly.

Response: We thank the reviewer for pointing this issue out. Now all these formulas were rewritten as Sr$_2$Ca(1-$1.5x$%)WO$_6$:$x$ mol% Dy$^{3+}$

2. The authors invoke cross-relaxation for the dysprosium ions in their energy level diagram (Figure 8) and the surrounding text, but they should point out that they have not presented experimental evidence for this, but that it may help explain the quenching observed as the dopant level increases.

Response: Dy$^{3+}$ ions have matched energy level pairs which produce strong cross relaxation and lead to concentration quenching. In the new manuscript it was pointed out that cross relaxation is likely the reason for concentration quenching, and the diagram was not meant to be a representation of experimental results.

3. Also in Table 1, the authors present the CCT column for the different powders, but do not discuss it anywhere in the text. Either introduce it in the discussion and talk about its relevance, or get rid of it. Also, the temperatures are much too specific: is it really 14252.09 K for 0.3 mol% Dy$^{3+}$? Or should the correct significant figures be more like 14252 or 14250 K?

Response: Thank the reviewer for pointing this out. Since it is not a significant part of this paper, the CCT column has been deleted.

These issues must be addressed before the manuscript can be published.