Review of: "Excitation-power-dependent upconversion luminescence competition in single β-NaYbF4:Er microcrystal pumped at 808 nm"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

The manuscript reports the competition between the green and red UCL in high Yb^{3+}-doped microcrystals with the gradually increase of excitation intensity. Moreover, this phenomenon is analyzed and confirmed in great detail. However, the basic properties and applications of $NaYF_4$ powders have been extensively reported in recent years. It is also a common phenomenon that high concentration of sensitized ions will lead to the color change. The innovation of the research work should be condensed and emphasized before the manuscript can be accepted for publication. The detailed comments are as follows:

1. In Fig. 2, the power density unit is incorrect.
2. There is not enough experimental evidence to prove that the color change is caused by cross relaxation. The measurement of powder lifetime may be a good choice.