

Response to Reviewer 1 Comments

Point 1: Authors should remove the phrase “the first time” from the abstract.

Response 1: Thank you for the comments from the reviewer. We have removed the phrase “the first time” from the abstract. The specific change can be found in the abstract of the article.

Point 2: Authors should mention the manufacturer of the powder used in this manuscript.

Response 2: Thank you for the comments. As the reviewer's comments, we have added the procedure that we prepare the powder used as follow. “The Polycrystalline materials $\text{Y}_{2.1}\text{Er}_{0.9}(\text{Sc}_x\text{Ga}_{1-x})_5\text{O}_{12}$ were made by Er_2O_3 , Y_2O_3 , Sc_2O_3 and Ga_2O_3 commercial powders that their purity is 99.99%. According to the different molar proportion of $\text{Sc}^{3+}:\text{Ga}^{3+}$ (1:9, 2:8, 3:7 and 4:6) in every compound, the relevant powders were accurately weighed with keeping the total weight of every group in 10 grams. Afterwards, these powders were adequately mixed for more than 48h.”

Point 3: Authors should avoid using “And” at the beginning of the sentence.

Response 3: Thank you for the comments from the reviewer. According to your comments, the relevant change has been made in the article. All “And” at the beginning of the sentence have been modified.

Point 4: Authors have presented only the results obtained using different characterization techniques without any discussion. Authors should provide scientific explanation to the results and establish correlation between them.

Response 4: Thank you for the comments. We have added the relevant discussion and explanation in the part of the “Results” of the article.

Point 5: It is not clear how authors have obtained the lifetimes. Author should demonstrate the procedure to obtain lifetime in a separate figure.

Response 5: Thank you for the comments. The relevant illustration and figure have been added in the article as follow . The relevant explanation has also been added in the article of the part 3.2.

Point 6: Authors should assign the peaks in both XRD and Raman spectra, and discuss the nature of their transitions.

Response 6: Thank you for the comments. We have added the relevant discussion in the part 3.3 of the article. We also assign the peaks in both XRD and Raman spectra of the article.