

The work tested the changes in electrical conductivity and the ion concentrations in two springs near the epicenters before and after two earthquakes (Mw 7.7 and Mw 7.6, in Kahramanmaraş), suggesting the anomalies with an increase electrical conductivity and the major ions before the earthquake. The analytical methods used and the results obtained are reliable, but the conclusions are limited due to the limited samples (the number of spring holes) and the significant results from only one point. The manuscript needs major revision. I believe that the authors have done their best to obtain data on all possible spring holes, and it would be difficult to recommend that they test more samples from other possible springs. Therefore, from other perspectives, I think the following possible improvements still exist, depending on the authors.

1. In terms of form, the contents of Table 2 and Figure 3 are somewhat repetitive, and it is suggested that the author could optimize or merge them.
2. Since the author only analyzed the relationship between the ion concentration changes and the earthquake from the perspective of time and location, this analysis is only correlation analysis and lacks causality analysis. Therefore, the author need try to find some data that can reflect the change of crust stress, such as deep drilling data, ground stress station data or satellite observation of surface displacement and deformation data (e.g., InSAR) to support the rationality of ion concentration changes from the perspective of time and space. I think this can greatly increase the reliability of the results of the work.
3. From the time series observation data of the spring water, the increase in ion concentration began as early as one year before the M7.7 earthquake. However, since the author only presented the results of one year, the process of increasing ion concentration was not fully displayed, and the audience could not clearly see when the increase in ion concentration began, and whether it was in a low value stable state more than one year before the M7.7 earthquake. Please add this part of data, if not, please explain the reason.
4. In addition, I would like to know whether the author has obtained synchronized spring temperature data, which I think is also crucial to reflect the process and results of underground fluid migration. If so, it is suggested that the author add relevant content and make analysis. If not, I suggest that the author refer to the schematic diagram in Figure 10 of this paper (He A, Singh R P. Groundwater level response to the Wenchuan earthquake of May 2008[J]. Geomatics, Natural Hazards and Risk, 2018.), and combine the location and lithology of the spring in your work to analyze and discuss the reasons for the abnormal spring.
5. Line 402, two immediate mechanisms was presented. Here the authors should elaborate them in detail as you can as possible, for example providing some schematic diagrams associating to the potential mechanisms. This is very important to understand the physical processes and increase the reliability of this work.