

Interactive comment on “Hydrochemical characteristics of the hot spring waters in the Kangding district related to the Lushan M_S 7.0 earthquake in Sichuan, China” by Z. Chen et al.

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Comment 1: Authors report that anomalous geochemical signals occurred before a seismic event. Graphs have been forced to demonstrate the above assumption. Anyway no experimental data were continuously recorded before the shock, thus the identified anomalies could be obviously a consequence of the seismic event and not precursors of it. Anyway data are interesting and deserve to be published. It is suggested to downplay the supposed precursory character of signals modifying graphs and text accordingly. Thank you very much for your valuable and instructive comments on the manuscript. The paper has been thoroughly and carefully revised according to your

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comments. The reply to each comment is as followed: Actually, before the main shock, the latest data were measured in 2010, and there were no obviously hydrochemical variations. However, the hydrochemical anomalies were observed 3-5 days after the main shock, and the amplitudes were obviously, as high as 231.9 mg L⁻¹. Usually, hydrochemical anomalies related to earthquake can continue to about one month after the main shock (Du et al., 2008), such as those of the Wenchuan Ms 8.0 earthquake with the epicenter 300km northeast to that of the Lushan Ms 7.0 earthquake (Chen et al., 2014). Therefore, the observed hydrochemical anomalies after the Lushan Ms 7.0 earthquake could be the continued precursory related to the main shock. On the other hand, 36 aftershocks with ML higher than 4.0 occurred within 5 days after the Lushan Ms 7.0 earthquake. Therefore, the hydrochemical anomalies observed after the main shock could be possibly attributed to the aftershocks too. We had made the modification in the text.

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