

**Comments:** TS1, TS2, TS3, TS4 and TS5

**Thank you very much for your valuable comments on the manuscript. The reply to each comment is as followed:**

Chen, Z., Du, J., Zhou, X., Yi, L., Liu, L., Xie, C., Cui, Y., and Li, Y.: Hydrochemistry of the hot springs in western Sichuan Province related to the Wenchuan  $M_s$  8.0 earthquake, Sci. World J., 2014, 901432, doi:10.1155/2014/901432, 2014.

Shen, L. C.: The Study of Deep Source CO<sub>2</sub> Degassing and Carbon Cycle in the Southwest of China, Ph D Thesis, Southwest University, Chongqing, 2007.

Wu, Y. Q., Jiang, Z. S., Wang, M., Che, S., Liao, H., Li, Q., Li, P., Yang, Y. L., Xiang, H. P., Shao, Z. G., Wang, W. X., Wei, W. X., and Liu, X. X.: Preliminary results of the co-seismic displacement and pre-seismic strain accumulation of the Lushan  $M_s$  7.0 earthquake reflected by the GPS surveying, Chin. Sci. Bull., 58, 1910-1916, 2013.

Zhou, X. C.: Gas Geochemistry in Western Sichuan Related to 12 May 2008 Wenchuan  $M_s$  8.0 Earthquake, Ph D thesis, University of Science and Technology of China, Hefei, 2011.

Zhou, X. C., Du, J. G., Chen, Z., Cheng, J., Tang, Y., Yang, L., Xie, C., Cui, Y. J., Liu, L., Yi, L., Yang, P. X., and Li, Y.: Geochemistry of soil gas in the seismic fault zone produced by the Wenchuan  $M_s$  8.0 earthquake, southwestern China, Geochem. T., 11, 1-10, doi:10.1186/1467-4866-11-5, 2010.

**We had made the modification in the text.**