



Multi-geophysical process possibly associated with the 2008 Ms8.0 Wenchuan earthquake

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The Ms8.0 Wenchuan earthquake is one of the most catastrophic earthquakes occurred recently. Although the geophysical network around the epicentral region is not dense enough partially due to the inactivity of the Longmenshan fault, the retrospective investigation of geophysical data in and around the epicentral region would be helpful for strengthening the understanding of the seismogenic process of the Wenchuan earthquake. This paper summarized some preliminary results of the retrospective investigation, especially focusing on the seismic and electromagnetic data possibly associated with the Wenchuan earthquake and its aftershocks. The spatio-temporal investigation of the seismicity changes indicated that there is an intermediate-term seismic quiescence around the epicenter during 2006-2007. The electromagnetic data also showed some anomalous changes (including co-seismic electromagnetic changes), which may be related with the Wenchuan earthquake and its aftershocks. Although further work is definitely required to enhance the reliability of the relationship between the above geophysical changes and the seismogenic process, the above preliminary results would provide some useful information for the related study and stimulate further validation study on the precursors of the Wenchuan earthquake.

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