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## DISCUSSION ON THE SEISMIC TYPE OF THE LONGLING EARTHQUAKE AND SOME PROBLEMS CONCERNED

Qin Baoyan, Rong Dailu, Li Qicheng

(Earthquake Research Institute of Lanzhou, SSB, China)

### Abstract

According to the migration characteristics of three main shocks of the Long ling earthquake from the south to the north and the temporal-spatial zoning characteristics of sources based on the seismic activities of three main shocks and strong after shocks, the authors consider that the seismic type of the Longling earthquake is belong to a type of great ensuing earthquakes, i.e. the three main shocks are located on different sources respectively which link each other from the beginning and the end, and the three source regions have its fore-and after-shocks respectively. The reason why the Longling earthquake occurred in complete granite has been interpreted by stereo model and shear creep fault in deep. It has also been explained forming multiple source when the main shock occurred and developping aftershocks because of the relative complete medium and the strong regional compress stress. A method to estimate magnitude of multiple source summing the length of each source fault has been advanced.

**Key Words:** Diapiric Stereo Model; Multiple Source; Summing Fault Length and Magnitude

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### 兰 州 标 准 水

由于受国际标准水 (SMOW) 储量的限制, 国内外同位素实验室进行同位素测定时, 不得不自行制备自己的实验工作标准。由于制备条件的限制, 在我国也只有北京大学、中国科学技术大学等少数单位有自己的工作标准。但由于量少而不能满足有关实验室的测试需求。而且, 上述单位制备的标准水均位于我国东部地区的低海拔区内,  $\delta_D$  值均较高, 不利于我国西部地区对同位素的测定。为此, 兰州地震研究所水化室于 1985 年和兰州军区总医院协作, 利用兰州地下水经二次蒸馏, 在稳定环境下制得 25 万毫升兰州标准水。每瓶以 6 毫升为基准, 用医用安培瓶快速封装。该水经北京等 6 个单位质谱实验室多次标定确定:  $\delta_D$  值为  $-84.55 \pm 0.37\%$  (SMOW)。近几年经北京、河北、陕西、兰州、青海等有关实验室使用后均认为: 兰州标准水使用方便, 没有分馏现象, 数据稳定可靠、重复性好, 可做为室内工作标准, 符合标准水的要求, 因而受到用户的好评。兰州标准水填补了我国标准水的一项空白。我们欢迎国内外有关实验室采用兰州标准水做室内工作标准。

(国家地震局兰州地震研究所 倪明康)