

## 滇中中元古界大龙口组地震灾变事件及地质意义

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中文摘要:软沉积物变形构造是确定古地震存在的关键证据之一。笔者在云南易门地区进行野外露头剖面调查时,在滇中新元古代大龙口组中识别出了3个地震事件层,其中发现大量的水塑性褶皱、液化构造等变形构造,主要类型包括微褶皱纹层、与液化脉有关的褶皱、与液化层有关的褶皱和受侧向挤压而成的顺层滑动、碟状泄水构造、液化脉、液化沙侵、水压破裂等构造。此外,白齿构造与水塑性褶皱、液化构造等地震成因变形构造伴生发育,并且其脉体形态、大小、优势方位等与后者的分布、变形样式、强度等有一定的对应关系。软沉积物变形构造及白齿构造的形态、位态及发育层位特征表明,它们的驱动机制是地震活动。迄今为止,已发现的滇中地区大龙口组震积岩均分布于罗茨?甘庄断裂的东侧,指示软沉积物变形、白齿构造与西缘控盆断裂间存在密切的成因联系。

中文关键词:[中元古界](#) [大龙口组](#) [软沉积物变形构造](#) [白齿构造](#) [震积岩](#) [昆阳裂谷](#)

## Neoproterozoic Seismic Catastrophic Events in Dalongkou Formation of Central Yunnan and Their Geological Significance

**Abstract:** Soft sediment deformation is one of the key indicators identifying the existence of paleo-earthquake. Based on detailed section researches on the Dalongkou Formation in central Yunnan Province, the authors recognized three horizons of earthquake-driven events with abundant soft sediment deformation and liquefied structures such as micro-ripple laminae, soft sediment folding related to liquefied dikes, soft sediment folding related to liquefied beds, interbedded slumping caused by lateral stress, dish/escape structures, liquefied dikes, mushroom-like liquefied beds and hydraulic shattering structures. Besides, molar-tooth structures, whose change in shape, size and dominated orientation of distribution shows similarity with the change of distribution, style of folding and intensity in the above structures, were also found in the three event horizons. Evidence in the modality, special characteristics and properties of event horizons of the soft sediment deformation and molar-tooth structures indicates that earthquake was the driven force. All the seismites found were distributed on the east side of the Luoci-Ganzhuang fault, suggesting a close relationship between the basin-controlling fault and some certain de-formation, such as soft-sediment deformation and molar-tooth structure.


**keywords:** [Mesoproterozoic](#) [Dalongkou Formation](#) [soft sediment deformation](#) [molar-tooth structure](#) [seismite](#) [Kunyang rift valley](#)

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