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Relationship between the Pre-existing Active Kunlun Fault and Co-seismic Surface Ruptures Produced by the 2001 Mw 7．8 Central Kunlun Earthquake，China

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摘要 Field investigations allow to constrain the co-seismic surface rupture zone of ～400km with a strike-slip up to 16．3 m associated with the 2001Mw 7．8 Central Kunlun earthquake that occurred along the western segment of the Kunlun fault，northern Tibet．The co-seismic rupture structures are almost duplicated on the pre-existing fault traces of the Kunlun fault．The deformational characteristics of the co-seismic surface ruptures reveal that the earthquake had a nearly pure strike-slip mechanism．Theg eologic and topographice vidence clearly shows that spatial distributions of the co-seismic surface ruptures are re-stricted by the pre-existing geological structures of the Kunlun fault．

关键词 Earthquake；Co-seiemic surface rupture；Active fault；Pre-existing fault；Seismogenic fault zone

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