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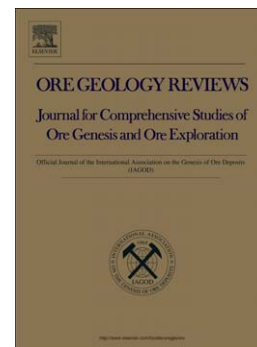
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**Metallogeny linked to mantle dynamics in the Sanjiang Tethys region as inferred
from P-wave teleseismic tomographic study**

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Abstract: The Sanjiang Tethys tectonic domain is one of the major metallogenic belts in China. The magmatism and metallogeny in this region have been variously attributed to break-off of the subducted slab, delamination of the lower crust or lithosphere, and mantle plume upwelling. Previous seismic studies have identified prominent heterogeneity of velocity structure in the crust and mantle in this region. Here we synthesize teleseismic data recorded by China seismic networks and mobile seismic stations to generate tomographic images at various depth sections in the Sanjiang Tethys region. Our results clearly indicate zones of low velocity perturbation associated with mantle upwelling, which might suggest extensive crust-mantle interaction which possibly acted as the trigger for magmatism and metallogeny in this region.

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