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South Menderes Monocline: Low-temperature thermochronology constrains role of crustal extension in structural evolution of southwest Turkey



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## ACCEPTED MANUSCRIPT

#### South Menderes Monocline: low-temperature thermochronology

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#### Turkey

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#### Abstract:

We report apatite and zircon fission-track data across the contact zones between the Menderes nappes, the Cycladic blueschist unit, and the Ören nappe, in the Anatolide belt of southwest Turkey. These data resolve previous debate on the deformation history of these Cretaceous to Eocene nappe contacts, including whether they were reactivated during late Oligocene to Miocene crustal extension. Apatite fission-track ages range from 18 to 28 Ma in the Menderes nappes, and 31 to 42 Ma in the Ören nappe. Zircon fission-track ages are 29 to 31 Ma in the Menderes nappes, 30 to 33 Ma in the Cycladic blueschist unit, and between 93 Ma and 129 Ma in the Ören nappe. The data reveal that the tectonic contacts within the Menderes nappes, and with the overlying Cycladic blueschist Download English Version:

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