Syn-convergence extension and mid-crustal exhumation in the Internal Dinarides

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Final closure of the Neotethys ocean basin was accompanied by upper crustal extension in a belt spanning the southern Balkans from the Albanides to Western Anatolia. Despite the widespread occurrence of this phenomenon, similar extension has not previously been observed along the Neotethys suture in the Dinarides. The Mid-Bosnian-Schist Mountains (MBSM) are a fault bounded body of Greenschist facies metamorphic rocks located along the Dinaric Neotethys suture in the internal Dinarides. We combine low-medium temperature thermochronometric dates with field observations of kinematic shear sense indicators and demonstrate that the MBSM were exhumed along a low-angle normal-fault between 43-28 Ma. These data constitute the first evidence for an extensional event in the Dinarides contemporaneous with collision between Adria and the Eurasian margin, and provide evidence for removal of a subducting slab during the transition between oceanic subduction and continental collision.