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The Norian magmatic rocks of Jabuka, Brusnik and Vis Islands (Croatia) and their bearing on the evolution of Triassic magmatism in the Adria Plate

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The magmatic bodies of Jabuka, Brusnik, and Vis Islands of the Adriatic Sea are located in the easternmost part of the Adria Plate (Adriatic Unit according to Slovenec & Šegvić, 2021), close to the External Dinarides (Pamić and Balen, 2005). The magmatic rocks on the islands are, from West to East, intrusive bodies on Jabuka, sub-intrusive on Brusnik, and effusive rocks on Vis.

Feldspar separates from Jabuka and Brusnik Islands yielded mini-plateau $^{40}Ar/^{39}Ar$ ages of 229.0 ± 5.4 Ma and 221.5 ± 2.5 Ma indicating that this magmatism is Carnian-Norian in age. The whole-rock geochemical compositions (major and trace elements, Sr-Nd isotopes) indicate that the magmatic rocks of the Croatian Islands range from tholeiitic to calc-alkaline, yielding a subduction signature. This signature is also shared by coeval magmas from the Adria Plate and may be related to crustal components subducted during the Hercynian orogeny and recycled within the mantle source(s) of this anorogenic magmatism.