the fluid mobile element content of the rocks. Excluding the enriched B data, the B content in the Pieniny area is not higher, then 10.7 µg/g. The examined Moravian and Toroiaga rocks have higher B content (9.9-20.8 and 6.3-21.5 µg/g respectively). This correlates with the higher K_2O content of these rocks, referring to fluid originating from the crust, while the fluid added to the source of the Pieniny rocks are originating more probably from the subducted sediments. The B data of the Moravian rocks overlap with the B content of West Carpathian andesites (11.1-29.8 µg/g), while the B content of the Toroiaga samples overlap with the Călimani and the Gutâi boron data (4.9-30.2 µg/g). The lower values of the Pieniny area is more in the range measured in back arc, intraplate basalts of the Bakony-Balaton Highland volcanic field (1.6-12.9 µg/g). There is a tight connection between the calc-alkaline volcanism and the intrusive magmatic body formation. In absence of biostratigraphic evidence, a comprehensive K-Ar age study of the intrusive whole rocks was carried out, which was driven to the following origin history: from Moravia until the bend of the Carpathians the magmatism was parallel (~13.5-11 Ma). In the subvolcanic zone of the East Carpathians the intrusion took place between 11.3–7.6 Ma.

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Rheological analysis of a sub-marine landslide in the Marmara Sea (Turkey)

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When seismic and multi-beam bathymetric data from the northern shelf and slope of the Cinarcik Basin are interpreted, some sub-marine landslides are observed clearly. Additionally, seismic data indicate that upper surface of the submarine extension of the Paleozoic aged rocks has NNE-SSW oriented basin and ridge type morphology controlled by the secondary faults of the NAFZ. Basins are fulfilled by Pliocene-Quaternary sediments, which are cut by strike-slip faults on the shelf and slope. Thickness of these deposits increases up to 130 m toward the concave shaped northern slope of the Cinarcik Basin. A relatively recent sub-marine landslide, Tuzla Sub-marine Landslide, cuts the concave slope of the Cinarcik Basin. Detailed morphological investigation indicate that Tuzla Landslide is a deep-seated rotational landslide, which possibly triggered by the NAFZ. Morphological analyses also indicate that thick Plio-Quaternary deposits on the Paleozoic basement were slided during the Tuzla Landslide event. This landslide is considered as a key event for modeling the future landslide potential of the northern shelf and slope of the Cinarcik Basin. For this reason, the main purpose of the present study is to perform some rheological analyses to understand the behaviour of the events. As the main results obtained from the analyses, the runout distances and the velocities were calculated.