

1.14.10. THE ELASTIC PROPERTIES DETERMINATION OF VOLCANIC ROCKS BY USING ULTRASONIC METHOD

Sarpün İ.H., Hersat S.B., Özkan V., Afyon Kocatepe University,
Physics Dept., Afyonkarahisar, Turkey;
Tuncel S., Tübitak Marmara Research Center,
Gebze, Kocaeli, Turkey;
Yildiz A., Afyon Kocatepe University,
Mining Engineering, Afyonkarahisar, Turkey

In this study, elastic properties of volcanic rocks, which were obtained from the Afyonkarahisar region, have been examined by using ultrasonic method. Ultrasonic elastic properties of these rocks have been compared with mineralogical and chemical properties, structure and porosity. Evaluated ultrasonic velocities, both transverse and longitudinal, have been used to calculate the elasticity modulus of volcanic rocks. Ultrasonic elastic properties of rocks showed a linear relation with the classification of the rocks.