

# Experimental study of the electrical conductivity of hydrous minerals under high P-T conditions

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A new paper titled "Experimental study of the electrical conductivity of hydrous minerals in the crust and the mantle under high pressure and high temperature," published in *Science China Earth Sciences*, overviews the studies of electrical conductivity measurement of hydrous minerals in recent years.

Hydrous minerals are important water carriers in the crust and the mantle, especially in the [subduction zone](#). With the recent development of the experimental technique, studies of the [electrical conductivity](#) of hydrous silicate minerals under controlled temperature, pressure and oxygen fugacity, have helped to constrain the water distribution in the Earth's interior.

This paper emphasizes the dehydration effect and the pressure effect on the bulk conductivity of the hydrous minerals. The paper also discusses conduction mechanism of hydrous minerals and the electrical structure of the subduction zone based on the available conductivity data.

**More information:** XinZhuan Guo. Experimental study of the electrical conductivity of hydrous minerals in the crust and the mantle under high pressure and high temperature, *Science China Earth Sciences* (2016). [DOI: 10.1007/s11430-015-5249-5](https://doi.org/10.1007/s11430-015-5249-5)

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